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**WOMEN AND TECHNOLOGY: GENDERING THE MOBILE PHONE
PORTUGAL AS A CASE STUDY**

Tese apresentada para obtenção do grau de doutor em
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Resumo

A tese visa oferecer um melhor entendimento da relação entre mulheres e tecnologia através da análise do significado dos telemóveis nas vidas das mulheres Portuguesas. Desenvolvimentos teóricos recentes sugerem que é dado pouco ênfase ao estudo das diferenças entre mulheres. O nosso ímpeto inicial para realizar esta investigação foi assim contribuir para colmatar esta lacuna, investigando a possibilidade de o telemóvel se constituir como uma base para um aumento da intimidade tecnológica das mulheres, sem recorrer à tradicional oposição binária entre homens e mulheres.

Este estudo está focado no telemóvel como um local onde as nuances das experiências das mulheres com a tecnologia se tornam visíveis. Foca-se também nas mulheres adultas dado que estas têm sido um grupo sub-representado quer em trabalhos académicos, quer em estudos comerciais. Ao escolher conduzir um estudo de caso de Portugal quisemos contribuir para o futuro desenvolvimento de análises culturais comparativas da relação entre a construção de género e o telemóvel.

Esta tese tem os seus alicerces teóricos nos debates feministas mais recentes que identificam a representação cultural e o discurso como veículos importantes do sistema de género. Baseia-se no entendimento de que a relação com a tecnologia é também uma relação de género e que este é socialmente construído.

O presente estudo situa-se no cruzamento entre os estudos feministas, os estudos de cultura e o estudo dos novos media, oferecendo assim uma nova perspectiva de análise da relação entre a construção de género e o telemóvel que propusemos ser a do estudos feministas culturais das comunicações móveis. A metodologia de investigação está alinhada com a opção por uma articulação entre cultura e comunicação na análise do telemóvel. Apesar de combinar métodos quantitativos e qualitativos numa estratégia de investigação interpretativa, o trabalho opta claramente por um design misto em que a vertente qualitativa é dominante por forma a responder à questão de qual é o significado do telemóvel para diferentes grupos de mulheres Portuguesas, em diferentes etapas de vida. Argumentamos que o papel que a mulher desempenha é determinante no seu uso do telemóvel e que este é assim determinado pela etapa de vida em que a mulher se encontra e não pela geração a que pertence.

Como principais conclusões temos que, contrariamente a uma teoria da existência de um uso dominante para a tecnologia, uma teoria de *Apparatgeist*, ou do espírito da máquina, como proposto por James Katz, o telemóvel assume papéis e possibilidades de acção diferentes de acordo com a etapa de vida da mulher. Enquanto objectos corporizados, os telemóveis são parte de um sistema complexo de relações de poder e, se é verdade que as mulheres conquistaram o direito a muitas formas de mobilidade, elas estão ainda constrangidas nas suas conquistas por um desequilíbrio na construção temporal e espacial de género e nas expectativas sociais quanto ao papel que devem desempenhar.

Concluimos com pistas de reflexão para a indústria das comunicações móveis, incentivando os agentes a afastarem-se de uma perspectiva funcionalista para abraçar uma perspectiva sociocultural mais ampla e a desenvolver produtos e serviços alinhados com os estilos de vida e necessidades reais das mulheres. Como em muitas outras áreas os estereótipos de género deixaram de ser mapas válidos da realidade, demonstrando a sua fragilidade num mundo cada vez mais complexo. Os agentes da indústria precisam encontrar novas ferramentas para lidar com essa complexidade e compreender as virtuosidades de um mercado que até aqui não viu as suas reais necessidades satisfeitas e que se apresenta escondido sob os números elevados das taxas de penetração e das quotas de mercado.

Propomos igualmente uma nova agenda para trabalho futuro centrada em algumas áreas-chave como a da teoria da pós-convergência e na abertura a novos paradigmas de investigação como o uso da abordagem dos ciclos ou etapas de vida.

Abstract

The thesis aims to provide a better understanding of the relationship between women and technology through an inquiry into the significance of mobile phones in the lives of Portuguese women. Recent theoretical developments suggest too little emphasis has been placed on differences between women. Our initial impetus for conducting this research was to contribute to fill this gap by investigating the possibilities of mobile phones as the basis for an increased technological intimacy of women without reinstating old binary oppositions between men and women.

The study focuses on the mobile phone as a site where the nuances of women's experiences with technology becomes visible and on adult women as a meaningful yet underrepresented group. By choosing to conduct a case study of Portugal we also want to contribute to the development of future cross-cultural analysis on the gendering of the mobile phone.

This thesis is theoretically grounded in the more recent feminist debates, identifying cultural representation and discourse as important carriers of the gender system. It is rooted in the understanding that the relation to technology is a gendered relation and that gender is socially constructed.

The study is located at the crossroads of feminist studies, cultural studies and new media thus offering new lenses through which to look at the phenomenon of the gendering of mobile phones - that of feminist cultural studies of mobile communications. The research methodology is aligned with the taking of a cultural perspective of mobile communications. Albeit blending quantitative and qualitative methods in an interpretative research strategy, the work clearly opts for a qualitative dominant mixed method designed to answer the question of what the meaning of the mobile phone for different groups of Portuguese women, at different life stages in their life trajectories, is. We argue that the role women play is determinant in their use of the mobile phone. Moreover, this role is determined by their position in the life course and not by their position in the cohort.

The key findings are that, contrary to a theory of a dominant use for a technology, an *Apparatgeist*, as proposed by James Katz, the mobile phone has different roles and affordances depending on women's life stages. As embodied objects mobile phones are part of very complex power relationships and if it is true that women have conquered mobility in many ways, they are still constrained in their achievements by an unbalanced gendering of time, space and expectations about their role in society.

We conclude by offering several implications for the industry, urging agents to move from a functional perspective to a broad socio-cultural perspective, and to develop information products that resonate with women's lifestyles. We also propose a new agenda for future work, which centers on a few key research areas namely that of post-convergence and opening it up to new paradigms such as the use of the life stage and life course approaches.

Keywords:

Gender, Technology, Mobile Phone, Technofeminism, Life Course, Portugal

This thesis is dedicated to all the women and men that fought and those who still fight for the right of women to choose their destiny.

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Introduction

In the movie *Sex and the City* (2008) the main character Carrie Bradshaw talks to her assistant, Louise, about her new mobile phone that is replacing the former that she through at the sea in the aftermath of her breaking up with Mr.Big.

Louise: Here, time to rejoin the world.

Carrie: Already

Louise: Your new number, area code 347-85 - -

Carrie: Ho – Ho – Hold it. 347? Oh, no. No, I'm a 917 gal, always have been.

Louise: I tried; it's no longer available. Now, you're 347.

Later, talking on the mobile phone with her friend Samantha:

Samantha: Samantha

Carrie: Carrie, Bradshaw, or I used to be.

Samantha: Talk to me

Carrie: I'm a 347 area code. How awful is that?

Samantha: 347 is the new New York

Carrie: Well, I want the old New York with my old 917 and my old will to live.

What is the basis for this identification with a mobile area code? It is a feminist claim that our relation to technology is a gendered relation and that “technology itself cannot be fully understood without reference to gender” (Cockburn, 1992: 32). If the mobile phone is an expression of our identity then it also gendered. How does this gendering occur? The option for using the verb “gendering” is rooted in the understanding that gender is socially constructed. Our aim is to study gender as a process:

The shift to using gender as a verb ('to gender', 'gendered', 'gendering', engender') is a reflection of changed understandings of gender as an active ongoing process, rather than something that is ready-made and fixed. In this sense, then, something is gendered when it is, in and of itself, actively engaged in social processes that produce and reproduce distinctions between women and men. 'Gendering' and 'gendered' are concepts which 'signify' outcomes that are socially constructed (Pilcher & Whelehan, 2004: 322).

If society is co-produced with technology, the gender¹ effect cannot be ignored in the design, development, innovation and communication of technological products:

¹ The distinction between sex (biological characteristics) and gender (socially acquired characteristics) began with second wave feminism. Frequently researchers “use the term gender as a variable in empirical

“Technology, then, can tell us something we need to know about gender identity. Gender identity can tell us something we need to know about technology” (Cockburn, 1992: 42). The emergent “technofeminism” theory proposes a relation in which technology is, at the same time, cause and consequence of gender relations (Wajcman, 2004b: 107). Technofeminism allows us to take into account women's agency and offer a more complex account of the gendering process, one that incorporates contradiction. Judy Wajcman defined the challenge in the following terms:

The literature on gender and technology has grown to become a broad and diverse field. It foregrounds the need to investigate the ways in which women's identities, needs and priorities are being reconfigured together with digital technologies. This opens up fresh possibilities for studies that are more attuned to how different groups of women users creatively respond to and assimilate numerous ICTs in diverse real-world locations (Wajcman, 2007: 295)

This research took up Wajcman's challenge to provide a study of how different groups of Portuguese women responded and assimilated the mobile phone in their daily lives.

research, although this is simply dichotomized into male or female and thus is really used as a proxy for sex” (Coulthard & Castleman, 2006: 31). Nevertheless the interest in finding biological differences still persists both in academic production and in popular culture as evident by the proliferation of books and movies on the subject of what biologically separates women from men. With third wave feminism, scholarship took a critical approach to gender and has acknowledged that gender cannot be reduced to biological sex and that it encapsulates more complexity than the dichotomy of man and women and that there are a wide set of differences that account for gender differentiation, “The theoretical challenge has been to develop a new approach to gender that recognizes these differences but does not reduce them to biology or simple social conditioning” (Coulthard & Castleman, 2006: 33). One of the examples of the contemporary approaches to gender is West and Zimmerman's (1987) distinction between sex, sex category and gender and the proposal of gender as a “doing”. For them sex is “a determination made through the application of socially agreed biological criteria for classifying persons as males or females” (West & Zimmerman, 1987, p. 127). This determination is the outcome of a social process that allows us to find criteria to classify what constitutes a male or a female. Thus, at birth, we are placed into one sex category and from there on we relate to others based on their displays for the according sex category such as hair or clothing. So sex category is a proxy for sex. Gender is the process that enables us to display our sex category. Gender is not something we are but something we do. In the same sense, Butler posits gender as a performance (1990, 2004b, 2004c). It is in this scope that we will use the term gender throughout the thesis, as a concept that has moved from being an assumed natural category to one in which gender is a process, an ongoing unfolding act that is continually shaped and refined: “Gender behavior is not informed by an inner core, biological or otherwise. It is informed by the mundane, everyday need to make sense to oneself and to others” (Coulthard & Castleman, 2006: 34).

1. Motivation and Contribution

One of the first motivations for writing this thesis is the empirical observation of how women feel so comfortable using the mobile phone. Younger or older they all carry one in their bags and treat it as a mundane object. This observation was followed by the statistical evidence that women, contrary to other technologies, were adopting mobile phones at the same rhythm than men (Ganito, 2007a). The following step was to question this apparent equality in numbers (Ganito, 2008). In fact much of the previous research on gender and mobile phone use has been conducted in comparative terms, women versus men (Fortunati, 2009). In this type of research we end up finding no meaningful differences between men and women. And that lack of differences is left with no explanation. This thesis wants to fill this gap and contribute for an explanation thus the research is not centered on differences between men and women, but rather on women's specific experiences, leaving space for the contradictory effects and meanings for different groups of women. So it is not about differences between men and women but about the different meaning of mobile phones and their trajectory in women's lives.

Previous works (Ganito, 2007a, 2007b, 2008, 2009, 2010b; Ganito & Ferreira, 2009) were also useful to conclude that most of the popular views around women's use of the mobile phone were not true. One of the urban myths is that Portuguese men make more phone calls than women and that they are the ones that personalize the mobile phone more through the use of contents like ringtones and wallpapers. Stressing the difference between men and women would reinforce an essentialized view of gender that has been articulated around politics of power stated in the fact that "[...] in virtually all cultures whatever is defined as manly, is more highly valued than whatever is thought of as womanly" (Harding, 1986: 18). Women should not be treated as a homogeneous group and that approach is encapsulated in the binary analysis that is most common in this field. Gender should be articulated far beyond sexual difference and rather as a social construct. Thus this dissertation is theoretically grounded in the more recent feminist debate, identifying cultural representation and discourse as important carriers of the gender system. The aim is to contribute to an understanding of the gender-technology relation, focusing on the mobile phone, as a complex set of relations and affordances.

Another motivation came from the understanding that women are an underserved market. They control the budgets for the vast majority of the product categories, they are a source of innovation and diversity and thus a big leverage to get out of the current financial crisis, they are an increasing percentage of the job market and, contrary to popular beliefs are very interested in technology. But regardless of this potential most brands and companies do not know how to address women: “[...] too many companies continue to make poorly conceived products, offer services that take up way too much of women’s precious time, and serve up outdated marketing narratives that portray women as stereotypes” (Silverstein & Sayre, 2009b: 7). Women are taken as a synonym of consumption but in fact they are being undervalued and underestimated. In surveys and market research around the world (Parmar, 2007a, 2007b) women describe how they feel patronized when buying technology or as advertising targets of technology companies. Women want much more than simplistic solutions, fashion oriented designs, pink coloring, or second-grade versions of men’s products. Women want “above all, more time. More understanding would be good too, especially for the complexities that come with playing multiple roles” (Silverstein & Sayre, 2009a: 1).

The need to understand the differences in the nature of the relationship of women with technology and the mobile phone is not only market oriented. Mobile phones can empower women and, in an increasing mobile society, not using them at their fullest potential can mean being left at the margins of the mobile revolution. The penetration rates of mobile phones that show equality in adoption rates hide other phenomenon that hinder women’s full inclusion such as a higher ownership of smart phones by men, and a more diversified use of services and features by men, which includes mobile internet. Without full inclusion women face the persistence of a gap in the same process that Manuel Castells described regarding the Internet. Castells drew attention to the fact that access alone does not solve the problem of the digital divide because we should also account for differential access: “The centrality of the Internet in many areas of social, economic, and political activity is tantamount to marginality for those without, or with only limited, access to the Internet, as well as for those unable to use it effectively” (Castells, 2001: 247). We can easily argue that the mobile phone enjoys a similar centrality in today’s socio-technological system to that of the Internet and the lack of a proficient use of mobile phones could lead women into a new digital divide.

Although the mobile phone is currently one of the most pervasive communication technologies, little discussion of it has been framed within a gender perspective and fewer of those discussions from a feminist perspective. The thesis seeks to contribute to filling the gap by providing a feminist standpoint; it will strive to offer a better understanding of women's relation with technology to improve how their needs are met: "For feminists, research on technology is not just about adding to our academic knowledge, it is also an emancipator project. One of the questions which it asks of any theoretical or methodological approach is whether and how it can contribute to women's liberation" (Grint & Gill, 1995: 21). We aim at a better understanding of the relationship of women and technology and we will look at the mobile phone as a site where the nuances of women's experience with technology becomes visible, thus allowing for a more complex account of the gendering process of the mobile phone and to incorporate contradiction and agency.

2. Research Problem

Past debates about gender and mobile phones have frequently focused on differences between men and women (Fortunati, 2009). These debates have resulted in ambiguous, muted or contradictory findings. So instead of suggesting another response to the issue of gender difference, this thesis reorients the focus towards the discussion of the stability and homogeneity of the category woman. The thesis is guided by the following overall research problem:

What is the meaning of the mobile phone for different groups of Portuguese women, at different life-stages?

The study focuses on adult women as a meaningful group; one that has been constantly underrepresented in academic and commercial studies of the mobile phone. The field of mobile phone studies, as much of new media research, is centered on young people's practices and neglects adult women as an interesting and powerful group. The thesis seeks to contribute to gain knowledge about the relationship between women and mobile phones and to critically investigate if and why mobile phones increase technological intimacy for women. The initial impetus for this study was to find out what was hiding behind the numbers of a strong uptake of mobile phones by women and how does the gendering of the mobile phone occur in Portugal.

In addition, the following particularizing questions were posed during the fieldwork:

Research question 1 – What is the trajectory of the mobile phone in women's lives?

How do mobile phones enter women's lives, how do mobile phones evolve by means of use? The thesis will give voice to women to trace this trajectory and to investigate when do women come closer and distant to the mobile phone.

Research question 2 – How is gender performed through the mobile phone?

By addressing the mobile phone as a "social stage" (Caronia & Caron, 2004; Goffman, 1959; Oksman & Turtiainen, 2004), it becomes a site where gender performativity takes place: what presentations of self do women produce in mobile communications

and what kind of frame does mobile phone communication enable? The cultural meanings attributed to the device are a part of the social stage where women construct meanings of themselves and others and this occurs through the choice they make of the device. What symbolic meanings do they attribute to it? What is their gendered nature?

Research question 3 – How does the mobile phone affects women's experience of mobility?

Research question 4 – What role does the mobile phone play in the a feminized temporal crisis, especially in a country as Portugal that registers one of the highest employment rates for women and thus high constraints on women's time?

Two of the most important human perceptions are space and time. We define ourselves as human beings in a certain time and space context. These dimensions are being transformed as our experience is mediated by mobile technologies. But how is this transformation occurring in women's lives? Are women conquering new spaces that were traditionally hostile to them? Do mobile phones affect the power regulation and negotiation of a woman's place? Are women allowed a larger scope in the management of their time?

Research question 5 – Can women through the mobile phone build a more intimate relationship with technology, subverting traditional gender-role stereotypes?

The stereotype is that women are neither interested nor capable as far as technology is regarded. We want to propose the mobile phone as a location where the fragility of gender stereotypes becomes apparent. We also want to propose "fragility" as an analytical tool to incorporate contradiction and agency in women's appropriation of the mobile phone.

The focus of the research is on the use of the mobile phone by adult Portuguese women. But why choose the mobile phone and what is the contribution of conducting a case study of Portugal?

2.1. The Mobile Phone as a new media

Mobile communication is becoming a way of life.

(Katz, 2006)

Currently we are facing a new technological revolution – a mobile one. Our lives are increasingly performed within a mobile context. The mobile phone is with us, on our every step, from the time we wake up to its ring, to the time we go to sleep, after sending our last text message, and even during our sleep, while it stands (turned on) on our bedside table. There is unanimity regarding the profound impact of mobile communications in the way we live, interact with others and see the world (N. Green, Harper, Murtagh, & Cooper, 2001; J. Katz & Aakhus, 2002; Levinson, 2004). We live by the mobile phone and construct meaning through it.

Mobile phones are part of the life of societies around the five continents and, despite their cultural differences, those populations seem to converge to a common set of practices, concerns and negotiations of time, space and identity concerning the use of mobile communications (J. Katz & Aakhus, 2002). The mobile phone also presents symbolic aspects in different cultures and groups and is closely related to aesthetics and fashion, presenting itself as a cultural artefact. The meaning of the mobile phone is not just utilitarian or instrumental, but also emotional and entertaining (Ganito, 2007d). As a cultural object, the mobile phone can be considered a place of performance. But what makes the mobile phone an interesting object in the scope of this research is that, opposite the telephone and other communication technologies, the mobile phone is considered a highly personal object, an extension of the body (Lasen, 2002). What is new in the mobile phone, as a media, is the ability to reach a person and not a place (Feldmann, 2005). And, as personal objects, we want them to express our personality and identity and thus we personalize them: “The mobile phone could be our personal miniature representative” (J. Katz, 2006: 51).

The mobile phone became part of us in such a way that if we lose it, it is like losing a limb. Losing a mobile phone is losing the connections that it enables; the connection to our network of friends, of comfort, our contents, our knowledge. Once again in the movie *Sex and the City* when the main character, Carrie, wants to disconnect from Mr.

Big, that had left her at the altar, she throws her mobile phone, with all his voice messages, to the sea, thus symbolically ending her mourning period and getting ready to start a new chapter in her life. It is also unquestionable that the mobile phone is one of the most pervasive technological artefacts of our days. Its adoption rate grew at a never seen speed (Castells, Fernández-Ardèvol, & Qiu, 2004a). But is the mobile phone a media? A media is first of all something that generates a codified transmission of symbols within a predefined framework and structure of signs between sender and receiver. Unquestionably, the mobile phone is a transmitter of symbols. And could we define it as a new media? Fausto Colombo (1993) defines new media as all media of communication, representation and knowledge in which we find a signal and content digitalization and that have multimedia and interactive dimensions. Roger Silverstone (1999) proposes that what is new is the convergence of several distinctive characteristics in the same technological support: interactivity, globalization, virtualization, digital convergence and many-to-many communication, for which the mobile phone with its Swiss knife nature is the perfect example: “The cellphone allows the reception, like the book or the radio, and production, as the camera. And allows it instantly, at long distances and interactively” (Levinson, 2004: 53). But a new media also means new ways of communicating, new models of social organization, new audiences, a new rhetoric and new contents.

New media can be called that way because they mediate communication and bring novelties that incorporate new technological dimensions that combine in the same platform interpersonal communication and mass media, because they induce change in organizations, new ways of managing time and because they synthesize textual and visual rhetoric and promote new audiences and tools of social reconstruction (Cardoso, 2006: 189).

New media allow for new forms of production, access, new business models, new professions and new forms of culture. Mobile technologies are not new: Newspapers, magazines, and radio were already mobile; but the mobile phone brings new affordances that range from safety to expression of one's identity. Amparo Lasen (2002) also calls the attention to the fact that although mobile phones are personal, they are not individual, they are collaborative tools of network creation and management. Thus the mobile phone is also a creative technology that allows users to create and share their contents: pictures, videos, music, games. It is a multifunctional and multidimensional artefact that induces profound changes in our context: new uses of time, new ways of interacting with others and the end of space barriers between the professional and

private, leisure and work. As the Internet, the mobile phone is simultaneously a media of interpersonal communication with high levels of interactivity and a mass communication media offering services such as mobile television.

If mobility has become the context of living, we also have to understand gender against that background. Figures regarding mobile phone handling between men and women are similar (Hans Geser, 2006) but differences come out in qualitative usage (Hans Geser, 2004), its purpose and nature, as well as in the discourse (D. Lemish & A. Cohen, 2005).

2.2. Portugal as a case study

Being a worldwide ubiquitous technology some authors defend a global mobile culture with equally global usage patterns. James Katz and Mark Aakhus (2002) argue for an *Apparatgeist*, for a spirit of the machine, that surpasses cultural differences:

We argue that technology does not determine what an individual can do; rather, it serves as a constraint upon possibilities. Much as a cafeteria menu will not offer infinite meal choices, but rather presents a finite selection of meal courses, so too historically bound technology offers us a flexible menu of extensive, but not infinite, choices. The *Apparatgeist* refers the common set of strategies or principles of reasoning about technology evident in the identifiable, consistent and generalized patterns of technological advancement throughout history. It is through these common strategies and principles of reasoning that individual and collective behavior are drawn together (...) Regardless of culture, when people interact with their PCTs they tend to standardize infrastructure and gravitate towards consistent tastes and universal features (J. Katz & Aakhus, 2002: 307,310).

For Katz and Aakhus the logic that drives personal communication technologies, such as the mobile phone, is one of “perpetual contact”. This has been a controversial theory with authors such as Mimi Ito strongly disagreeing with a theory of *Apparatgeist*. For Ito technologies are “both constructive and constructed by historical, social and cultural contexts” (Mizuko Ito, Okabe, & Matsuda, 2005). Our understanding is also that knowledge is always contingent. Thus, the option for a case study is grounded on the theory “situated knowledges” (Haraway, 1988), on the need to specify contexts:

As gendered subjects, our research is situated within specific discourses, times and places, class relations, knowledge structures, and so on. Thus we do not insist that our research has the answers but insist that we produce knowledge valid within certain contexts and frames of analysis. This applies to the concept of technology as well as that of gender (Berg & Lie, 1995: 343).

As a case study Portugal offers itself as a particularly interesting object of analysis. From the technology perspective Portugal has a very high penetration rate of mobile phones, one of the highest in Europe², and also a high usage rate, especially among those born after 1967³ (Cardoso, Gomes, Espanha, & Araújo, 2007). And, although Portugal is a small market, of little more than ten million inhabitants, it has been particularly innovative in adopting new technologies, services and applications. It is the choice of many companies such as the mobile carrier Vodafone⁴ to test their new products and services.

From the gender perspective, Portugal is also considered a peculiar case in the scope of the European Union countries because if, on one hand, the State is not able to provide a satisfactory level of supporting social services such as schools and maternity protection, on the other hand it is the country where most women work full time (A. C. Torres, Silva, Monteiro, & Cabrita, 2004). In 2007, 61,9% of women aged 15 to 64⁵ were employed, which is above the European average of 58,3%.

The convergence of these characteristics makes Portugal an interesting socio-technical system for studying the gendering of the mobile phone and offers a contribution to the “need to broaden and intensify the cross-cultural work on mobiles (...) further, extended, systematic and comprehensive studies of the insertion and shaping of mobiles in national cultural contexts” (Goggin, 2008: 358).

² According to ANACOM (<http://www.anacom.pt/render.jsp?contentId=1042267>), at the end of the second trimester of 2010 the penetration rate was 148,7% which is above the European Union average of 122,9%.

³ These speak a daily average of more than thirty minutes. This percentage drops to 10,3% amongst those born before 1967. The year of 1967 was chosen in the referenced study because those born after 1967 would be influenced by end of the dictatorial regime in 1974. The revolution brought a dramatic change in Portuguese society that is reflected in media practices.

⁴ A recent example is the new residential service that provides TV services, landline and mobile networks called “Vodafone Casa” and which is currently being tested in Portugal - <http://www.vodafone.pt/main/Particulares/vodafonecasa/>

⁵ The retirement age in Portugal is at 65 years for both men and women.

3. Theoretical Grounding

Theory is a toolbox where you choose your tool according to the question and the context.

Lawrence Grossberg, 2008

This thesis is rooted in an understanding of “communication as culture” (Carey, 1992b). Carey understands communication as “a symbolic process whereby reality is produced, maintained, repaired, and transformed (...) To study communication is to examine the actual social process wherein significant symbolic forms are created, apprehended and used” (1992b: 23, 34). The implications of this approach go beyond the range of theoretical and conceptual frameworks that can be brought to bear on the research questions, and have a deep implications for research practice. This articulation is not without tension (I. C. Gil, 2006):

To look at communication as a form of cultural production presupposes the cultivation of a dialectic and semiotic model of interpreting the media as representational acts and situated cultural products. Only thus may they be subjected to a cultural analysis that is also oriented by differentiation mechanisms, constructivity and contingency (I. C. Gil, 2006: 9).

Culture is also what mediates our analysis of the gender-media relation. In the scope of the feminist media studies we understand that “the relation between gender and communication is primarily – although not only – a cultural one – concerning a negotiation of meanings and values that informs whole ways of life” (Zoonen, 1994: 148). The themes of the research are thus at the crossroads of feminist studies, cultural studies, and new media (figure 1) constituting motivation for writing this thesis to build a theory of feminist cultural studies of mobile communications. We want to make a strong case for building a feminist perspective into the debate around the social significance of the mobile phone. In the end we hope to better understand the gendered practices in Portugal, thus laying the ground for further cross-cultural and comparative studies.

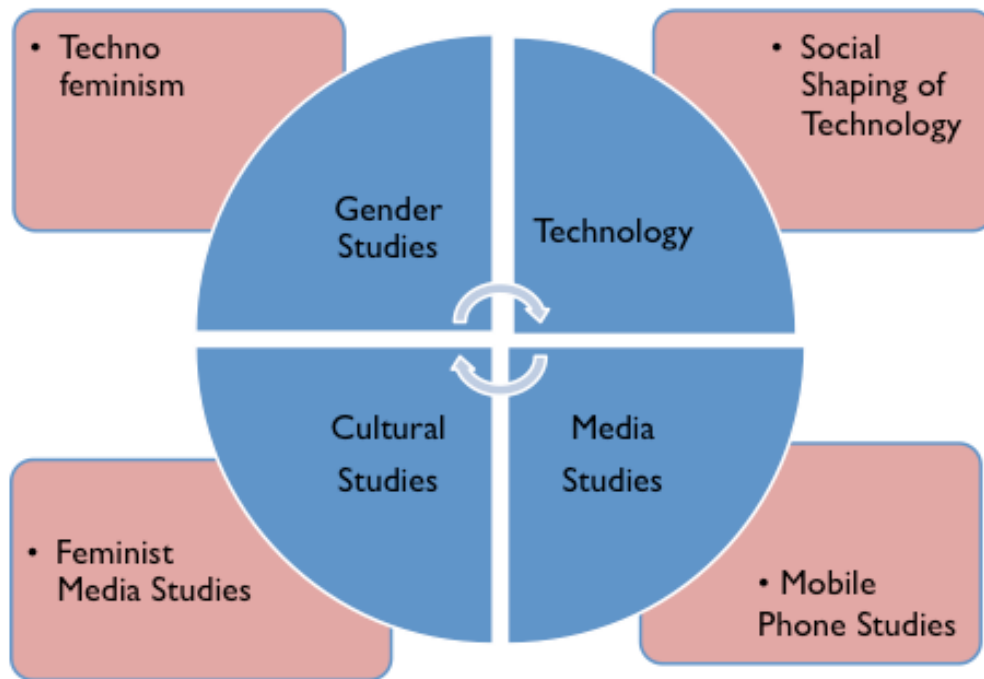


Figure 1. Theoretical grounding.

From the field of cultural studies the thesis will draw on the contribution of feminist media studies, but two other authors will be central to the thesis: Michel Foucault (Foucault, 1977, 1978) and Erving Goffman (Goffman, 1959, 1963, 1971, 1974, 1976b, 1977). Central to Michel Foucault is the concept of “Technologies of the Self”. Also central are considerations of the self and how individuals – shaped in specific cultural contexts – could come to choose actions that would produce sanctions, but doing so willingly. Goffman offers a cultural and symbolic reading of social interaction that has been refashioned to frame mobile communication (Ling, 2004a, 2008a, 2008b). Central for the thesis are the concepts of “symbolic interaction”, “structure” and “agency” and their articulations.

From the feminist studies point of view, the thesis will be grounded on “techno feminism” (Wajcman, 1991, 2004a). Judy Wajcman defends a relation in which technology is, at the same time, cause and consequence of gender relations; a theoretical frame that is central to this thesis. But other authors that study the relationship between technology and women will also provide major contributions: Donna Haraway (1988, 1991a, 1991b, 2004), Rosi Braidotti (1993, 1994, 1996, 2002a, 2002b, 2003, 2006) and Teresa de Lauretis (1987, 2004).

The thesis uses an interpretative research strategy that draws from theories that approach technology in an interactive fashion such as the social shaping of technology (MacKenzie & Wajcman, 1985), the social construction of reality (Pinch & Bijker, 1987), and actor-network theory (Callon & Rip, 1986; Latour, 1987). Both the SST and the social construction of reality theories have a strong influence in feminist theory, namely in technofeminism that is foundational to this thesis. ANT although criticised by Wajcman and by technofeminist authors provides a strong anti or de-essentialist perspective through concepts such as that of “interpretative flexibility” that help frame the trajectory of the mobile phone. We will also borrow from the Phenomenology tradition to reinforce the notion of the co-construction of technology, namely the post-phenomenology of Don Ihde (2002), especially the concept of intentionality; the notion of “In-the-World” of Heidegger (1962) and the doctrine of “constituting acts”.

Phenomenology approaches to everyday life helps us understand that meaning is constructed through human actions. These actions also have a material aspect. People involve objects in a “mutual co-construction process” (Caron & Caronia, 2007). The mobile phone is one of those objects. Technological artefacts mediate our sensorial relation to reality and by doing so they transform our perception. This capacity for transformation is designated by Don Ihde (2002) as “intentionality”, meaning that technologies have an active part in the relation established between human subjects and the world. But these “intentionalities” are not fixed properties of the artefacts; they are shaped in the relation that humans establish with them. In the context of different relations, technologies can have distinctive identities. Ihde calls them “multistabilities”: the same technology can have different stabilities, according to its usage context. Like gender, technology is also conditioned by history, cultural patterns and stereotypes: “We take our tools as “relevant” tools within a range of cultural practices that already reveal it as such or such a possibility to act” (Introna, 2007: 130). All our interactions with the world involve our thoughts, our bodily capabilities but also our past and our context, our social and cultural understanding that contextualizes and provides clues to deal with whatever catches our attention: “Technics is the symbiosis of artefact and user within a human action” (Ihde, 1990: 73).

In the scope of gender, Judith Butler reinterprets the phenomenological conception of an “act” to present a notion of act that is socially shared, historically constituted and performative: “In opposition to theatrical or phenomenological models which take the gendered self to be prior to its acts, I will understand constituting acts not only as constituting the identity of the actor, but as constituting that identity as a compelling illusion, an object of *belief*” (Butler, 2004b: 188). Butler builds on Simone de Beauvoir’s claim that “one is not born but rather becomes a woman” (Beauvoir, 1949) to offer a theory of identity as a performative construct:

If there is something right in Beauvoir’s claim that one is not born, but rather *becomes* a woman, it follows that *woman* itself is a term in process, a becoming, a constructing that cannot rightfully be said to originate or to end. As an ongoing discursive practice, it is open to intervention and resignification (Butler, 1990: 33).

As for the theoretical contributions of mobile communications, this is just recently gaining recognition as a field, and up to now the research is dispersed along a wide range of areas of knowledge. There is still a lack of coherent and stable theories that we could use as analytical tools. Even the concept of mobility is used as a synonym for very distinct technologies such as wireless computing, new and fluid social realities, space negotiations and traveling, to name a few (Ganito, 2007a). When compared to other communication technologies such as the Internet we can easily state that the mobile phone has been neglected, inheriting the lack of interest to which his predecessor, the telephone, had already been devoted (Pool, 1977). But although an international scholar community is taking shape and the literature is growing, specially in sociology and anthropology, the cultural approach that we have chosen to take is still rare as far as the mobile phone is concerned (Goggin, 2006), as it is also rare for the mobile phone to be considered a media, its absence being felt from feminist media studies to the study of media in general:

While there have been quite some studies attentive to cross-cultural context, there has been little work that systematically explores local or international cell phone culture, and its implications for general accounts of culture. In particular, I think there has been a lack of recognition and analysis of how power relations and structures shape cell phone culture (...) Secondly, an important way to approach inquiry into the nature of cell phone communication is to take the medium itself seriously (...) Intimately related to the matter of the medium – or media – are questions of culture. Communication is embedded in media, and ultimately too in the elusive yet nurturing realm of culture. To date, cell phone and mobile

technologies studies may have not needed to consider the media dimension of cell phones. However, as the cell phone moves centre stage as a device criss-crossed by media flows and cultural forms and content, borrowing and cross-fertilising from audio and radio cultures, television cultures, print cultures, Internet and other new media cultures, and is increasingly regarded as a mobile medium, media studies approaches are likely to be very helpful (Goggin, 2006: 5-6).

In the absence of a prolific literature we will draw from authors that use a cultural approach to the study of the mobile phone such as Gerard Goggin (Goggin, 2006, 2008; Goggin & Hjorth, 2009), Leopoldina Fortunati (Fortunati, 2001, 2002, 2005a, 2005b, 2009, 2010; Fortunati, Katz, & Riccini, 2003) and Larissa Hjorth (Hjorth, 2005b, 2007, 2009a, 2009b). A seminal reference, not directly related to the mobile phone is the “circuit of culture” framework used in the case study of the Sony Walkman (Gay, Hall, James, McKay, & Negus, 1997). In much a similar way we will draw a gendered “biography” of the mobile phone. As du Gay et al. studied the Sony Walkman “culturally to use it as a clue to the study of modern culture in general” (1997: 8), we also study the mobile phone “culturally” to use it as a clue to the understanding of the gender-technology relation. Building on past work on the cultural study of the mobile phone but situating in the scope of technofeminism, this study investigates the possibilities of new forms of gender-technology relation without reinstating old binary oppositions between men and women.

4. Research Design

*Every Inquiry is a seeking.
Every seeking gets guided by what is sought.*
(Heidegger, 1962: 24)

Informed by the theoretical insights of the different fields that converge into the proposal of a feminist cultural study of mobile communications, the thesis was structured around a dialogue between theoretical explorations and a mixed methods empirical research that blends a quantitative analysis and qualitative fieldwork. This thesis strives to offer a better understanding of the relationship of women and mobile phones, using Portugal as a case study. As Yin (1981a, 1981b, 2003) has defined it: “A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used” (Yin, 2003: 23). Therefore the case study method is highly useful in this particular study, wherein we want to study the relationship between a phenomenon - gendering of mobile phones - and the context within which it is occurring – Portugal.

A case study can employ the use of both quantitative and/or qualitative measures. We use a mixed methodology (Tashakkori & Teddlie, 1998), combining elements of both quantitative and qualitative approaches, for conducting the case study. However the qualitative approach is dominant, as previous research had already made clear that quantifying the overall trends of mobile phone usage would give us little insight into the mobile phone biography and trajectory in women’s lives, and the social, cultural, institutional and economic factors that lead to such trajectory. We made a clear option for a dominant mixed method design in which “the researcher conducts the study within a single dominant paradigm with a small component of the overall study drawn from an alternative design” (J. W. Cresswell, 1995: 177). Thus we conducted a small preliminary set of interviews to qualified actors in the field: mobile communication companies, advertisers responsible for mobile communication campaigns, mobile phone manufacturers, mobile phone vendors, consumer associations. We followed with the construction of categories from these interviews. These then provided insight to review

the quantitative data available from a national survey on mobile phone use. The analysis of the quantitative data, in conjunction with the preliminary interviews allowed for the identification of gaps in the knowledge about women's uses of the mobile phone. We then proceeded by conducting a set of in-depth interviews to women at different life-stages. We have chosen to focus on adult women as a meaningful, interesting and powerful group, which is constantly underrepresented in academic and commercial studies of mobile phone usage that usually are more interested in young people.

Quantitative data was derived from the survey *Network Society in Portugal 2006* (Gustavo Cardoso, Maria do Carmo Gomes and Rita Espanha, 2006). This is a questionnaire-based survey (consult Annex B for further methodological information and questionnaire questions), applied to a representative sample of the Portuguese population aged 8 and above, living in mainland Portugal. The market research company MetrisGfK conducted the fieldwork, during the first semester of 2006. From the survey we used the module referent to mobile phones.

The qualitative data was drawn from 37 in-depth interviews to Portuguese women (consult annex C for a detailed list of the women interviewed). We have opted for semi-structured interviews (consult annex D for the interview script), which allowed us to navigate the questions as befitted the flow of the conversation, and also to pick up on interesting comments and follow them up more comprehensively, because we are “interested in thoughts and feelings that are often not articulated as stable opinions or preferences” (Turkle, 1984: 318) and these cannot be captured by more directive methods. These women were aggregated into seven groups corresponding to a life course approach:

As a concept, the life course refers to the age-graded, socially embedded sequence of roles that connect the phases of life. As a paradigm, the life course refers to an imaginative framework comprised of a set of interrelated presuppositions, concepts, and methods that are used to study these age-graded, socially embedded roles (Mortimer & Shanahan, 2004: xi).

Previous research on gender and technology seemed to argue that gender differences were less marked in the younger population (Richard Ling, 2001; Rich Ling, 2001) but other authors argue that gender differences in behavior are shaped as much by socialization as by generation (Gill & Grint, 1995; Herring, 2002; Selwyn, 2007; Singh, 2001; Wajcman, 2004). In the scope of this latter view gender roles would depend on the stage of life women and men are and thus gender differences will not disappear in

the future and “the behavior of adults who currently find themselves at these life stages would in this case be a better predictor of what future adult online behavior will look like than young people's current behavior” (Helsper, 2010: 353).

To define the seven groups or seven life-stages we used a modified version of the market research study⁶ of Portuguese consumers (Marktest, 2006). The study used five variables (marital status, age, occupation, number of people in the household and children and teenagers in the household) to reach the life cycle⁷ of the Portuguese consumer constituted by eleven distinctive groups: single dependent; young independent; nesting; married with children aged 0-6 years old; married with children aged 7-12 years old; married with children aged 13-17 years old; married with teenagers aged 18-24 years-old; other married coupled; sole caregivers; empty nests; independent over 35 years-old. In our research we have aggregated women into seven life stages: single dependent; young independent; nesting; mothers; single mothers; mature independent and empty nests. Women in the single dependent life stage are above 18 years old but still depend on their families financially and still live with them. In the next life stage young women have gained their financial independence, although they may still live with family they are able to control purchase decisions. The nesting life stage is determined by the beginning of a co-habitation relationship that might or not be formally constituted as marriage. The next life stage is that of motherhood; contrary to the Marktest study we have aggregated women with children at different ages but we acknowledge some differences in the use of the mobile phone according to the age of the kids and if they are old enough to have a mobile phone of their own. We then have single mothers either because they have become widows, because they have divorced or

⁶ The study was conducted based on a sample of 10.093 interviews of the Portuguese population.

⁷ A distinction should be made between life cycle or life stages and life course. The first approach emphasizes ages and stages and the second the transitions into those stages (Allatt, Keil, Bryman, & Bytheway, 1987). The life course approach enables the researcher to account for change and complexity. Manuel Castells described how societies had to replace biological life cycle by a socio-biological one and proposed that the network society is moving toward social arrhythmia “characterized by the breaking down of rhythmicity, either biological or social, associated with the notion of a lyfecycle” (Castells, 1996: 446). As societies become more complex the use of the life cycle approach has to resort to a more flexible understanding of how different stages unfold. In this study we understand that stages and the role women play at each stage helps to better understand the relationship to technology but that those stages no longer follow a sequential path and that individual turning-points (Hareven & Adams, 1982) along an individual life course should be taken into consideration. We thus follow an analysis based on trajectories understood as sequences of roles and experiences incorporating social context and individual variation. We also understand that the analysis of these trajectories is based on the principle of agency: “individuals construct their own life course through the choices and actions they take within the opportunities and constraints of history and social circumstance” (Elder, Johnson, & Crosnoe, 2003: 11).

separated their partners. We were particularly interested in analyzing the effects of the absence of the masculine part of the couple in the relationship of women to technology. Women in the mature independent life-stage are those that are around the age of 35, have no children and either have never been involved in a co-habitation relationship or have divorced or separated their partners. Finally empty nesters are women whose children have left home and who have retired or whose job has reached a stagnant level. This last stage has also become more complex to define and thus presents much variability: “while old age once considered a homogeneous last stage of life (...) it is now a highly diverse universe, made up of old retirees, average retirees, able elders, and elders with various degrees and forms of disability” (Castells, 1996: 446).

As for the selection of women for the seven groups we constructed a convenience sample. This is a non-probability sample that uses criteria that are useful to the research. This type of sample was chosen because it was the one that best fitted the “ideal types” strategy of analysis. But although individuals are representative of a certain type and the interviews provide heterogeneity this is not a probabilistic sample and thus has to ambition to be statistically representative. Women interviewed were also identified by “snow-ball” from a pool of urban heterosexual women.

As an analytical strategy we used “ideal types”. Max Weber used the notion of “ideal types” in association with the construction of pure cases to illustrate a conceptual category. In the scope of Max Weber’s work, ideal types are fictions, but in this research, following a similar strategy by Turkle to study computer cultures (Turtle, 1984), we have isolated real cases that serve the same function – to highlight particular aspects of the gendering of the mobile phone. The ideal type analysis was conducted under the method used by Marc-Henry Soulet⁸ (2002) following the methodological proposal for an interactive approach to qualitative research design by Joseph Maxwell (1999). The method is structured into two levels of analysis. In the first level of local interpretation we look at each interview and how each particular life story helps us answer our research questions. At this first level the researcher starts by writing a synopsis, which is a synthesis of the discourse. This is the first level of abstraction and

⁸ The method was presented in the scope of the doctoral program methods seminar by Verónica Policarpo following the presentation made by Marc-Henry Soulet in the seminar “La modélisation, la stratégie d’enquête et le traitement des données dans l’analyse compréhensive”. This method was also applied in the PhD research conducted by Teresa Libano Monteiro (Monteiro, 2005) on religious movements.

conceptualization. The following step is to write the inner history of the interview providing a chronological reading from the point of view of the interviewee in relation to the problem being analyzed. To complete the first level, the researcher draws a message that we can define as what each person wanted to tell us. These three steps are conducted for every single interview and then the researcher proceeds to the second level of global interpretation - a transversal interpretation of the individual stories, then of the aggregated ideal types, which in the scope of this research are the seven life-stages, and finally the all stories as a whole. To conduct this analysis and following Monteiro (2005) we did not wait for the categories to emerge from the analysis, rather our analysis was already informed by some major categories: identity, dependency, affectivity, norms and social fears, safety and control. Our goal in analyzing this categories is to identify the turning points⁹ in women's lives that had an impact on their use of the mobile phone; to provide an account of their daily lives (technology uses, media diets, routines) and determine its impact in their technological intimacy; and to analyze the mobile phone use, the affordances it allowed to women such as identity construction, affectivity, safety and control and how these affordances were translated into uses as those of personalization, micro-coordination, creativity, and entertainment.

⁹ Turning points can be defined as “traditional points in a person's life where daily rhythm and routine alter drastically due to a change in a person's role in society” (Helsper, 2010: 355).

5. Structure

We have laid the foundations for the next pages by clarifying our motivations and identifying our contributions to the field. We also identified the research problem and research questions that will drive our analysis and positioned our study in the theoretical ground. Finally we justified our methodology, as well as describe our methods. The thesis now unfolds into three main parts.

The first part of the thesis develops a theoretical framework and cultural history of feminism and technology. Chapter 1 identifies the theoretical contributions that will serve as basis for the thesis and chapter 2 is focused on the analysis of previous studies on the gendered use of the mobile phone, providing the state-of-the-art of research and pin-pointing the gaps.

The second part of the thesis is devoted to the investigation of the Portuguese Mobile Society. It draws from quantitative and qualitative data to make women's experiences of the mobile phone visible. The aim is to provide an adequate answer to the first research question: What is the trajectory of the mobile phone in women's lives?

After mapping the territory we provide, in part III, an analysis of the gendering practices of the mobile phone in Portugal using four categories: performance through color, personalization and sound; space; time and fragility. Part III relies heavily on the contributions of the fieldwork done for the thesis, namely the in-depth interviews. Nevertheless we offer insights from the work that has already been conducted on gender as mobile phones around the world (Hans Geser, 2006; Hjorth, 2005a; J. Katz & Aakhus, 2002; Lasen, 2005; D. Lee, 2005; M. Lee, 2006; D. Lemish & A. Cohen, 2005; Richard Ling, 2001; L. Rakow & Navarro, 1993; Shade, 2007; Steenson, 2006). In chapter 1, and by using the concept of performativity, we propose a view of the mobile phone as a place of acting and of gender construction and transformation. We argue that there are specific gender acts as conceived by Butler (2004b) related to mobile phone use that contribute to gender construction and transformation. We further explore how mobile phone's characteristics of disembodiment give rise to new gender (bending) performances. In chapter 2 and 3 we resort to the ground work of Manuel Castells

(2003) on the transformation of time and space, to answer the questions of whether women, through the mobile phone, can conquer new spaces that were traditionally hostile to them and what roles the mobile phone plays in women's negotiations of time. We conclude this part looking at the relation of women and mobile phones through the lenses of fragility. We propose that mobile phones are a privileged site for men and women to perform gender identity as well as a location where the fragility of gender stereotypes becomes apparent. We thus resort to theory on gender stereotypes to show the mobile phone as a fragile technology, as both a fragile product and producer of social fragility. Our contention is that the mobile phone unveils the fragility of gender stereotypes in the relation of women to technology.

We conclude by suggesting some further implications of the research findings for cultural and media studies approaches to the gendering of the mobile phone and for the industry regarding the development of gender sensitive mobile technology, services and contents, making clear that the gender gap is not about pre-conditioned competences, but about opportunities and choices.

Part I – Framing Female Mobility

*I'd like to be just like my Dad
He's handsome and he's keen;
He knows just how to drive the car,
And buy the gasoline*

*I'd like to be like my Mom,
She's pretty and she's nice;
She knows just how to make the bed,
And cook things out of rice.*

Song lyrics, "Mister Rogers' Neighborhood", 1960s

The lens we choose will definitely produce a distinct picture of the object at hand. In the same sense, the way we see the world will alter our perception of it. This dissertation is theoretically grounded in the more recent feminist debate about gender and technology. This first chapter is devoted to tracing the feminist debate and to clarify the theoretical approaches that will be used throughout the thesis.

Choosing a frame also means choosing what goes in the frame and what doesn't. In this first chapter we will analyze the feminist debate and not the whole theoretical discourse about women and technology that could be traced as far as Aristotle. The aim is to clarify how it has evolved from the analysis of the exclusion of women in the seventies to the intersection between cultural studies, communication studies and feminist studies, where our study is situated.

1. Feminism and Technology

Gender, not religion is the opiate of the masses

Erwing Goffman (Goffman, 1977: 315)

Women's use of technology has historically been presented as distopic¹⁰. Women are culturally considered the guardians of nature (Hopkins, 1998). They are the ones that become pregnant; they are the ones that raise children and their use of technology is viewed as a corruption of nature. For the eco-feminists it is even considered a metaphorical rape:

In the philosophical and literary discourse, noted Adorno and Horkheimer, it is common to identify women with nature. These shows up as the repressed subject of the bourgeois male that gives female body two functions: represent a site of exploitation and a potential utopia. The bourgeois subject is always male and women a male projection. The utopia is conceived as a reunification of the body and the bourgeois subject, which would mean reconciliation with "nature" (Silveirinha, 2008a: 109).

Mary Ann Doane describes this dystopia as a process of transference by which the anxieties regarding technology are transferred to the feminine (1999). The author provides several examples from the cinema. The first is that of the robot Maria in Fritz Lang's *Metropolis* (1926) and the corruption of motherhood. At the end "the machine is returned to its rightful place in the production, the woman hers in reproduction" (25). The notion of technology tainted motherhood is presented in recent films such as *Alien* (Scott, 1979), *Aliens* (Cameron, 1986) and *Blade Runner* (Scott, 1982).

The concept of what is considered technology also relegates women's role to a secondary place. The Western imaginary of technology is related to technologies generally used by men from which women are excluded because "contemporary

¹⁰ We could trace the association of science to masculinity and nature to femininity during the Enlightenment where the legacy of Aristotelian philosophy defined women as passive and intellectually inferior to men. The Scientific Revolution that started a process of nature domination implied also a domination of women. The set of values associated with femininity were inferior and less valuable to those associated with masculinity.

western femininity has involved the constitution of identities organized around [women's] technological incompetence" (Cockburn, 1992: 41). Technologies generally used by women are not even considered proper technologies, such as kitchen appliances: "in virtually all cultures whatever is defined as manly, is more highly valued than whatever is thought of as womanly" (Harding, 1986: 18). Women's spheres of technological appropriation were simply not part of the picture: "The statistics reveal no technological activities which are strictly feminine. One can, of course, name activities that are strictly feminine, e.g., nursing and infant care, but they fall outside the range of technological pursuits" (Murdock and Provost, 1973, p.210 cited by (Stanley, 1998: 17)).

Men and manly technologies are the norm to which women have to comply. "The discussions about the concept of technology are important because technical artefacts used by mainly women tend to be excluded, reinforcing the connection between men, masculinity and technology" (Berg & Lie, 1995: 340). When a technology used by women is acknowledge it is not valued in the same way. As technologies enter everyday life they seem to lose their research interest and women, being the vast majority of the users of massified technology do not get a place in the picture.

The feminist debate itself has ranged from the view of technologies as part of a patriarchal frame, shaped and mostly used in destructive and oppressive ways, to the view of technology as a liberating tool for women. For Don Ihde, the root for the polarization between utopian and dystopian visions of technology is a contradictory wish: We simultaneously want the power of transformation that technologies bring, and a natural experience, one of total transparency. An impossible synthesis because technologies are not neutral:

The actual or material technology always carries with it only a partial or quasi-transparency, which is the price for the extension of magnification that technologies give. In extending bodily capacities, the technology also transforms them. In that sense, all technologies in use are non-neutral (Ihde, 2002: 504).

Technological artefacts mediate our sensorial relation to reality and by doing it they are transforming our perception. This capacity for transformation is designated by Ihde (2002) as "intentionality", meaning that technologies have an active part in the relation between us as the world. But these *intentionalities* are not fixed properties of the artefacts; they are shaped in the relation that humans establish with them. In the context

of different relations, technologies can have distinctive identities. Ihde calls them “multistabilities”: the same technology can have different stabilities, according to its usage context.

Technology has thus been a controversial issue in feminist thinking. We will trace the diversified approaches to gender and technology although “feminist thought resists categorization into tidy schools of thought” (Tong, 2009: 1). We cannot speak of a chronological evolution and labels are themselves controversial and contestable. But this controversy also reflects the nature of the thesis and its interdisciplinary approach.

1.1. Early Feminist Theories on Technology

Early feminist theories were profoundly pessimistic about the role technology could play in women’s lives. The main concern was about access and stereotyping. The association of technology with masculinity was so deeply rooted that even feminists did not contend it.

With liberal feminism technology was not questioned, it was neutral. In a certain sense it was an extension of first wave feminism, as the struggle was all about equal opportunities in education and employment related to science and technical skills. The argument was that women, given the same opportunities, could perform as well as men:

The most important goal of women’s liberation is sexual equality, or, as it is sometimes termed, gender justice. Liberal feminist wish to free women from oppressive gender roles – that is from those roles used as excuses or justifications for giving women a lesser place, or no place at all, in the academy, the forum and the marketplace. These feminists stress that patriarchal society conflates *sex* and *gender*, deeming appropriate for women only those jobs associated with the traditional feminine personality (Tong, 2009: 34).

The problem with the argument is that women were compromising their identity to gain access to an otherwise masculine world. A degendering process that even today is very much in play at the corporate world. Young women, that are still building their career and have much to prove, choose their technology not according to their personal tastes but to conform to the aesthetics of the male standard. In *Why Can’t a Woman Be More Like a Man?*, Bethke Elshtain makes a strong point against liberal feminist for wanting

women to aspire to a male norm and to refuse or undermine biological differences, namely mothering:

Mothering is not a "role" on par with being a file clerk, a scientist, or a member of the Air Force. Mothering is a complicated, rich, ambivalent, vexing, joyous activity, which is biological, natural, social, symbolic, and emotional. It carries profoundly resonant emotional and sexual imperatives. A tendency to downplay the differences that pertain between, say, mothering and holding a job, not only drains our private relations of much of their significance, but also over-simplifies what can and should be done to alter things for women, who are frequently urged to change roles in order to solve their problems (Elshtain, 1981: 253).

Social and radical feminisms' attention turned to how gender was embedded into technology. Radical feminism, no longer wanted to find a place for women in the status quo, on the contrary, radical feminist wanted to fight the system: "radical feminist perceived themselves as revolutionaries rather than reformers" (Tong, 2009: 48). But while radical feminism celebrates women's differences, socialist feminism, influenced by Marxism, is concentrated on the machinery of production and how women were exploited by the introduction of technologies that represented male power. Socialist feminism brought an anti-technology attitude that was later dismissed. "Technology was seen as socially shaped, but shaped by men to the exclusion of women" (Wajcman, 2007: 290).

Another response came from eco-feminism that reproduce the association of women and nature and see in technology a masculine tool of power and control over women. This approach is rooted in a biological understanding of women's abilities – a woman's way of doing things, female values of pacifism and nurturance. Eco-feminists were particularly critical of military and medical technology for its exploitation of the female body. Although this approach celebrates women's natural characteristics it reifies the essentialist view of the gender-technology relation. It also leaves no room for agency or transformation, as every technology is an instrument of patriarchy society, the only answer for women is rejection.

Radical feminism was later criticized for reinforcing gender essentialism and for not accounting for agency. Feminism starts building on the concept of a culturally constructed gender; women's alienation from technologies is thus explained, not in essentialist terms but as an historical and cultural construction. This approach had its

predecessor on Simone de Beauvoir's work and her refusal of biology as destiny. On Simone de Beauvoir words:

One is not born, but rather becomes, a woman. No biological, psychological, or economic fate determines the figure that the human female presents in society; it is civilization as a whole that produces his creature, intermediate between male and eunuch, which is described as feminine (Beauvoir, 1989: 267).

A landmark in this transformation was Candance West and Don Zimmerman's "Doing Gender" (1987). In this groundbreaking article West and Zimmerman propose gender as something that is done in interaction with others: "Rather than as a property of individuals, we conceive of gender as an emergent feature of social situations: both as an outcome of and a rationale for various social arrangements and as a means of legitimating one of the most fundamental divisions of society" (126).

The association of technology and masculinity is thus seen as a result of a complex set of relations and processes and of an historical evolution. Authors as Cynthia Cockburn describe as technologies are gendered (Cockburn, 1985, 1992; Cockburn & Ormrod, 1993). In what she describes as a "circuit" technology operates under a double logic – as both sign and source of women's oppression" (Grint & Gill, 1995: 10).

As a result of developments in the studies of technology, namely the Social Shaping of Technology Approach (MacKenzie & Wajcman, 1985) technology was given a symbolic dimension.

1.2. Feminist Media Studies

With second wave feminism begins a systematic work of media analysis as sites of gender construction:

Second wave feminism is a term used to describe a new period of feminist collective political activism and militancy, which emerged in the late 1960s. Whereas the first wave lobbied for women's enfranchisement via the vote and access to the professions as well as the right to own property, the second wave feminists talked in terms of "liberation" from the oppressiveness of a patriarchally defined society. The key site for struggle was the female body itself – its representation and the meanings attached to the bald fact of biological difference (Pilcher & Whelehan, 2004: 144).

In a famous dialogue of the movie *Who Framed Roger Rabbit* (1998), Jessica Rabbit, the femme fatale, meets detective Eddie Valiant and presents herself as a victim of a patriarchal production and representation system:

Jessica Rabbit: You don't know how hard it is being a woman looking the way I do.

Eddie Valiant: You don't know how hard it is being a man looking at a woman looking the way you do.

Jessica Rabbit: I'm not bad. I'm just drawn that way.

The critique of this form of female representation had an important role in the feminist debate since the beginning of second-wave feminism. There was a growing conscience among feminists that social and political power was won and lost in representation. The argument had been that “the way women perceived themselves and were perceived was ineluctably shaped by the ways in which images of women were constructed and communicated to the population at large” (Pilcher & Whelehan, 2004: 135). There was an absolute conviction that material images affect people, their attitudes and behaviours. As Debord says, in the society of Spectacle only what appears exists, and the “major media have something approaching a monopoly over what appears to the general population” (Hardt & Negri, 2000: 340). With this recognition media becomes the centre of feminist critique:

One encounters correspondingly limited expectations of feminist cultural and media critique in discussions with students and colleagues. According to their logics, a feminist viewpoint on the media implies a univocal, confident and unswerving denunciation of popular culture, both for its sexist and oppressive portrayal of women and for the devastating effects it is supposed to have on women and men (Zoonen, 1994: 1).

Media were accused of maintaining gender stereotypes and assuming that audiences would be affected by sexist contents, and of contributing to the acceptance of the dominant ideology. There is an assumption of the female audience as passive individuals, completely immersed and incapable of recognizing the ideological maneuvers embedded in the texts. Most of the methodology used was based on text analysis. Representation was presented as a matter of distortion.

The first major works at the intersection of media and feminist studies are produced in the sixties and seventies. Betty Friedan (1963) in the *The Feminine Mystique* denounces sexism towards women in mass communication media through a portrait of sex roles in

women's magazines. A few years later Germaine Greer (1971) in the *Female Eunuch* also denounces media for encouraging people to believe that happiness was found in the heterosexual romance. Another landmark is Gaye Tuchman's (1978), *Hearth and Home: Images of Women and the Media* where she presents the symbolic annihilation of women by mass communication media where women were stereotyped as sexual objects, housewives or in domestic or caring jobs. She connected the notion of stereotype with the notion of "symbolic annihilation of women", meaning that culture production and media representation ignored, excluded, marginalized and trivialized women and its interests (Silveirinha, 2008c). Tuchman took the concept further and did not limit the concept of stereotype to a false image or a distortion of reality; she tried to understand the whole process of (re)presentation.

The media analysis of the seventies were, according to Silveirinha (2008c), limited by three factors: the exclusive use of content analysis, the inherent model of communication and the assumed relation with reality. They were centered on the way media showed meaning and not on the way they produced meaning. The idea of direct effects was also present: media effects were direct and independent of any audience capability. Audiences had no ability to construct meaning. Finally there was the assumption that there was a reality independent of the communicative process that could be presented and that media should reflect that reality:

Many analysis tend to generalize about the stereotypical nature of media content being insensitive to the specificities of genres, media and audience experiences (...) This type of research assumes an unequivocal meaning and effect of media content, with stereotypical images leading more or less unproblematically to stereotypical effects and traditional socialization patterns. The audience is thus implicitly conceptualized as a rather passive mass, merely consuming media messages (Zoonen, 1994: 18).

Feminist theory about the relation between women and technology was thus pessimistic and left little room for change, transformation and women's agency in that process.

Still in the seventies two new ideas took shape: the growing conscience that there are differences that shape the female subject; that representations are not expressive of any prior reality but instead actively constitutive of reality itself. With that, the study of representation ceased to limit itself to stereotypes:

In the end of the seventies it seemed clear that the importance of studying women's images did not reside in the question of stereotypes as false and simplified models of women, but in the fact that these images had inscribed a cultural dimension destined to make all believe that they represent what women are or should be. What mattered now was not only to fight sexism and invisibility but also to understand them (Silveirinha, 2008c: 118).

Several feminist and communication scholars in the intersection with cultural studies brought a new vision of the role of media and of technology. In *Feminist Media Studies* (1994), Liesbet van Zoonen looks at media production, texts and audiences from a feminist perspective. This book is a worldwide reference for the feminist studies of the media:

[...] Meaning is understood as constructed out of the historically and socially situated negotiation between institutional producers of meaning and audiences as producers of meaning. Meaning is no longer conceptualized as a more or less consistent entity, but is seen as contradictory, divided and plural, in other words polysemic (Zoonen, 1994: 27).

The focus is no longer if stereotypes reflect reality but if media representations are regarded as key ways of understanding how reality is constructed. The construction of meaning is viewed as a contradictory process, divided, plural and polysemic:

Audiences should be understood as producers of meaning instead of as mere consumers of meaning taking up prescribed textual audience positionings. This production of meaning can only be understood in its everyday context, which is, in its turn, located within social and power relations that circumscribe the potential of audiences to make meaning (Zoonen, 1994: 108).

It became important to analyze not only the media content but the whole system of (re)production and consumption. If society is co-produced with technology, the gender effect cannot be ignored in the design, development, innovation and communication of products. New methodologies began to be used: semiology and ethnography. Without setting aside the role of stereotypes to a better understanding of media representation of women and men, it became necessary to understand the whole functioning of the circuit of culture, the way media functions:

Although we cannot despise the images of identity produced by the media, an analysis of representations cannot limit itself to quantify stereotyped images. Not only new and wider frameworks are necessary but also other methodologies that, without disregarding the content, do not limit themselves to quantify them (Silveirinha, 2008b: 123).

Teresa de Lauretis in *Technologies of Gender: Essays on Theory, Film, and Fiction* (1987) presents the limitations of "sexual difference" and proposes gender as a product of various social technologies, among which media such as television, mobile phones, radio, newspapers. Lauretis's concept of "technology of gender" is rooted in Foucault's "technology of sex" defined as "a set of techniques for maximizing life". Lauretis takes it further and proposes that technologies of gender concerns itself: "Not only how the representation of gender is constructed by the given technology, but also how it becomes absorbed subjectively by each individual whom that technology addresses" (Lauretis, 2004: 223).

The construction of gender goes on today through the various technologies of gender (e.g., cinema) and institutional discourses (e.g., theory) with power to control the field of social meaning and thus produce, promote, and "implant" representations of gender. But the terms of a different construction of gender also exist, in the margins of hegemonic discourses. Posed from outside the heterosexual social contract, and inscribed in micropolitical practices, these terms can also have a part in the construction of gender, and their effects are rather at the "local" level of resistances, in subjectivity and self-representation (Lauretis, 2004: 18).

With third wave feminism, media analysis has overcome a simplistic and one-dimensional vision to embrace contradiction and diversity: "Only from a better understanding of what is at stake in mediated representation could we promote the production of alternative and counter hegemonic discourses and voices" (Silveirinha, 2008b: 127).

1.3. Postmodern Feminist Approaches

Third-wave feminism operates a rupture with former feminist thought: "Postmodern feminists reject any mode of feminist thought that aims to provide a single explanation for why women are oppressed or *the* ten or so steps *all* women must take to achieve liberation" (Tong, 2009: 270). There is room for more diversity, change and transformation.

Recent feminist studies began to theorize gender not as a prior reality that gets inscribed into technology but as relational construct, a performance, a doing (Butler, 1990, 1993, 2004b, 2004c; Candace West & Don H. Zimmerman, 1987).

The new feminist approaches, coinciding with the emergence of new digital technologies and digital media such as the Internet and mobile phones, also give rise to cyberfeminism and a more optimistic, sometimes fetishist view of technologies. Authors such as Sadie Plant, Sherry Turkle and Donna Haraway contend that digital technologies, and their disembodiment characteristics, transform them into a liberating tool for women.

1.3.1. Performativity

Judith Butler proposes that one becomes a woman through a sequence of acts. According to Butler there is no connection between a person's sex and a person's gender: "sex by definition, will be shown to have been gender all along" (Butler, 1990: 8). In her essay *Performative acts and gender constitution: an essay in phenomenology and feminist theory* (2004a), Butler articulates that gender is not just a social construct, but rather performative, a show we put on, a set of signs we wear, as costume or disguise - hence as far from essence as can be:

Certain kinds of acts are usually interpreted as expressive of a gender core or identity, and that these acts either conform to an expected gender identity or contest that expectation in some way. [...] Body becomes its gender through a series of acts which are renewed, revised, and consolidated through time (Butler, 2004b: 190).

Judith Butler contends that gender construction takes place through "gender acts". A concept rooted on Simone de Beauvoir and in the reinterpretation of the phenomenological doctrine of "constituting acts". In this post-structuralist analysis the categories of "man" and "women" are not "real entities but rather constructions or representations, achieved through discourse, performance and repetition" (Pilcher & Whelehan, 2004: xi). Butler's performativity theory is connected to Austin's speech act theory and Derrida:

Gender is an act that brings into being what it names: in this context, a ‘masculine’ man or a ‘feminine’ woman. Gender identities are constructed and constituted by language, which means that there is no gender identity that precedes language. If you like, it is not that an identity ‘does’ discourse or language, but the other way around – language and discourse ‘do’ gender. There is no ‘I’ outside language since identity is a signifying practice, and culturally intelligible subjects are the effects rather than the causes of discourses that conceal their workings (Butler, 1990: 145).

Butler questions the way feminism itself conceived women as a unitary category. Butler shows that in the attempt to unite women, former feminist approaches did not take into account cultural differences or different priorities which “gives rise to a hierarchy of demands (or charter) which as Butler shows produce their own exclusions” (McRobbie, 2005: 72).

Butler reinterprets the phenomenological conception of an “act” to present a notion of act that is socially shared, historically constituted and performative. Gender acts are conditioned by history, cultural patterns and stereotypes. Being performative, gender acts are not individual but collective; they imply a social structure and an audience. These acts involve the use of technology. “Individuals demonstrate their gender identity in part through their daily use of an object” (Wajcman, 2007: 293). This means that the same artefact can have different meanings to different individuals, and different cultures: “There is enormous variability in gendering by place, nationality, class, race, ethnicity, sexuality and generation and thus women’s experience of ICTs will be diverse” (Wajcman, 2007: 294).

Many think that Butler offers a pessimistic view of the capacity for transformation and space for agency: “Her controversial suggestion that the very notion of “woman” is overtly essentialist has generated the criticism that without this category we cannot name and work to transform sex-based oppressions” (Deveaux, 2000: 15). In an answer to those critics, in *Bodies That Matter* (1993) Butler further developed her theories to reinforce the possibility of agency and social change. Gender acts do not represent a reality, on the contrary they constitute reality, opening up possibilities of transformation, of constructing a distinct reality, they are “open to the process of parody, mimicry and rescripting, and hence to the possibility of subversion” (Puwar, 2004: 150).

Although Butler’s work has not been thoroughly used in accounts of media, popular culture or technology, her landmark contributions can help us think how technology is

involved in the blurring of the gender boundaries and of gender identities. Butler's work is also a constant reminder that we should not take these boundaries lightly. She strongly departs from a radical transformation viewpoint such as that provided by cyberfeminism:

There is indeed some degree of panic that she be understood as arguing that gender is a matter of choosing what to wear (or what not to wear). Butler adamantly wants to part company with those who endorse the existence of individual agents, endowed with some capacity to bring about change in the gender system, as this is to ignore the way in which the effects of power define the contours of possibility for opposition or transgression. I would suggest that this anxiety on Butler's part (...) is based on her understanding of how profound, embedded, entrenched, and absorbed through time are the normative dimensions of stable gender identities in the name of the reproduction of heterosexuality as a foundation of the social order. And so deep is the repudiation of gender instability as a possibility (...) that momentary or fleeting transgressions or even organised social movements which seek to defy these regulative effects, must be understood also in terms of how the dominant order constrains such 'reiterations' and provides the conditions of existence for evasions or displacements so that hegemonic normativity is renewed, indeed revitalised, by such enactments (McRobbie, 2005: 87).

1.3.2. Nomadism

Rosi Braidotti following Deleuze's (1977) nomadic counter-discourse builds a critical discourse of resistance to hegemonic theories, patterns and practices. A discourse that is rooted in difference:

Postmodernity is about a new and perversely fruitful alliance between technology and culture (...) We rather need more complexity, multiplicity, simultaneity and we need to rethink gender, class and race in the pursuit of these multiple, complex differences (Braidotti, 1996).

To account for variability Braidotti proposes the concept of "nomad" as an attempt to "explore and legitimate political agency, while taking as historical evidence the decline of metaphysically fixed, steady identities." (1994: 5). Reality, according to Rosi Braidotti, is never fixed. In: *Nomadic Subjects. Embodiment and Sexual Difference in Contemporary Feminist Theory* (1994), *Metamorphoses. Towards a Materialist Theory of Becoming* (2002b), and *Transpositions. On Nomadic Ethics* (2006), the author offers the subject as a nomadic figure constantly being negotiated in culture, space and time. Difference exists, not only between genders but also inside genders. Braidotti writes about the concept of *difference*:

If emancipation means adapting to the standards, the measures, the values of a society that for centuries has been male-dominated, accepting unquestioningly the same material and symbolic values as the dominant group, then emancipation is not enough...Putting women in, allowing them a few odd seats in the previously segregated clubs is not enough. What is needed is for newcomers to be able to be *entitled* to redefine the rules of the game so as to *make a difference* and make a difference felt concretely (Braidotti, 1994: 241-242).

Braidotti strives to find middle ground between polarized accounts of the effects of new media technologies and advises against a utopian view of digital technologies as inherently liberating for women. She notes the persistence of stereotypes, of a gender gap and the increase in the polarisation between sexes:

All this to say that I wish to take my distance equally from, on the one hand the euphoria of mainstream postmodernists who seize advanced technology and especially cyber-space as the possibility for multiple and polymorphous reembodyments; and on the other hand, from the many prophets of doom who mourn the decline of classical humanism. I see postmodernity instead as the threshold of new and important re-locations for cultural practice. One of the most significant pre-conditions for these re-locations is relinquishing both the fantasy of multiple re-embodiments and the fatal attraction of nostalgia (Braidotti, 1996).

1.3.3. Cyberfeminism and Technofeminism

Digital technologies and new media heralded new possibilities - a new era of empowerment and liberation. Some even contended that these were feminine media and women were particularly equipped for a networked world (Haraway, 1991a, 1991b; Plant, 1997, 2000; Turkle, 1984, 1995). The work of cyberfeminists, especially Donna Haraway, was pioneer in the highlighting of women's agency and thus became very influential among feminist technoscience scholars.

In *Simians, Cyborgs and Women: The Reinvention of nature* (1991), Donna Haraway articulates the concept of "cyborg" with feminism. The cyborg is a creature of a post-gender world that ends all dualisms, namely the polarity man and woman, a hybrid of human being and machine through which our sense of connection to our tools is heightened. She proposes that women must embrace technology as feminist politics and defends the need to go beyond the critic of representation and to incorporate the female subject in its multiplicity and subjectivity.

Haraway sees in science and technology the potential to create new meanings and new entities. Provocatively Haraway proposes the cybernetic organism as an alternative to a pure and deified vision of women, ending all dualisms:

There is nothing about being female that naturally binds women together into a unified category. There is not even such a state as 'being' female, itself a highly complex category constructed in contested sexual scientific discourses and other social practices (Haraway, 1991a: 231).

Although Haraway identifies science as a capitalist product, of a military, colonialist and racist society, dominated by men, she sees in cyber technology the possibility for feminine emancipation, refuting the anti-technological stance within most feminist critiques of science and technology as patriarchal tools for oppressing women.

The metaphor is especially powerful in its hybridism. An image of “transgressed boundaries, potent fusions and dangerous possibilities which progressive people might explore as part of much needed political work” (Haraway, 1991: 154). Thus many feminist authors in their revisitation of the gender-technology relation have used the cyborg. As an example, Anne Balsamo’s work builds on the cyborg theory to articulate bodies, technology and identity:

Cyborgs are hybrid entities that are neither wholly technological nor completely organic, which means that the cyborg has the potential not only to disrupt persistent dualisms that set the natural body in opposition to the technologically recrafted body, but also to refashion our thinking about the theoretical construction of the body as both a material entity and a discursive process ... the cyborg provides a framework for studying gender identity as it is technologically crafted simultaneously from the matter of material bodies and cultural fictions (Balsamo, 1996: 11).

Critics charge cyberfeminism of being a different kind of technological determinism, an optimistic one. Empiric work on the level of women’s participation in new media reveals that the situation has not dramatically improved and that old stereotypes are still in place in environments such as virtual worlds. Attributing to new technologies the power to emancipate women also brings back a certain form of essentialism. If we argue that women are better prepared for a network society then we are implying that there is something in their nature that makes them better prepared. And it also opens up the debate of what is “new”. Wajcman advises against the “danger of confusing new developments in theory with new developments in the things that theories are about”

(Wajcman, 2004a: 55). If technology and gender are co-produces that has always been the case and there should be nothing exceptional about digital technologies.

The work of Judy Wajcman stands as a bridge between earlier polarized positions of the feminist debate. In *Feminism Confronts Technology* (1991) and *TechnoFeminism* (2004a) the author defends a relation in which technology is, at the same time, cause and consequence of gender relations. This thesis will draw substantial contributions from her work. Technofeminism builds on the insights of cyberfeminis and the theories of social shaping of technology and constructivism. It also avoids both technological determinism and gender essentialism (Wajcman, 2009). It is a more integrated approach that stresses that gendering occurs through the entire life trajectory of an artefact, from design to consumption while former theories were too focused on a single step of the process.

Technofeminism builds on STS scholarship to allow for agency and fluidity to be taken into account in the analysis of the gendering of technology. Concepts as “interpretative flexibility” (Pinch & Bijker, 1987) and “domestication”¹¹ (Silverstone & Hirsch, 1992) reinforce the idea that technology is not pre-determined and that its trajectory is unpredictable.

Interpretative flexibility refers to the way in which different groups of people, involved with a technology can have very different understandings of that technology, including different understandings of its technical characteristics. Thus users can radically alter the meanings and deployment of technologies (Wajcman, 2000: 450).

Technologies can be subverted, reinterpreted, given unanticipated and unintended uses. The final result is a product of a social and material dialogue. François Bar’s work¹² on technological appropriation of the mobile phone (Bar, 2007) is particularly relevant in this matter.

¹¹ The “domestication” framework is particularly useful to highlight the complexity of processes for incorporating technology into everyday life. Such as the social shaping of technology (STS) it recognizes the agency of users in the adoption of artifacts in their lives. Use is also related to context and to the collectivity, rather than the individual: “The emergence of the domestication Kept represented a shift away from models which assumed the adoption of new innovations to be rational, linear, monocausal and technologically determined. Rather, it presented a theoretical framework research approach, which considered the complexity of everyday life and technology’s place within its dynamics, rituals, rules, routines and patterns” (Berker, Hartmann, Punie, & Ward, 2006: 1).

¹² Website for the *abaparu* project <http://abaporu.net/>

The problem with the social construction of technology theory from the perspective of feminism is that technologies acquire a stable meaning when relevant groups accept them, and women are not usually part of those groups, so gender analysis is generally overlooked.

Another useful approach is “actor-network theory” (ANT) developed by Michel Callon, Bruno Latour and John Law (Callon & Rip, 1986; Latour, 1987; Law & Hassard, 1999). ANT enables the researcher to take the material reality into account, and consider the artefact part of the network with its own agency. The artefact also acts according to a script. But this script, once more, is not fixed; different actors can translate it in different ways.

1.4. Conclusion

The aim of the thesis is to bring a feminist perspective into mobile studies and for that purpose we have traced the feminist debates about the gender-technology relation. Early feminist theories generally offered a pessimistic view about the role technology played in women's lives. Technological determinism and essentialism were pervasive in these initial approaches and solutions ranged from the prescription to women to fight for their place in the technological male arena, to the refusal of technology all together.

With the development of digital technologies, that stressed brain over muscle and began a process of "individualization" and "reflexivity", new feminist approaches developed, namely cyberfeminism, for which the limits of the sex difference would disappear through the promises of disembodied worlds. Soon became evident for feminists such as Judy Wajcman that the promise of digital freedom was no more that a new form of determinism, this time in an optimistic tone, and thus called for a middle-ground approach that offered a "more materialist analysis of gender and technology" (Wajcman, 2004a: 106).

Other post-modern feminist contributions stress the multiplicity of identities and the different responses of women to technology. These contributions such as that of Rosi Braidotti allow resistance, subversion and parody to be taken into account: "It also foregrounds the idea that women want to participate in technoscience on their own terms, and not as surrogate men" (Wajcman, 2004a: 113). One example of that capacity for subversion is the precursor of the mobile phone – the telephone. Studies of the telephone, further detailed in the next chapter, show how women subverted the inscribed or prescribed use. The telephone was designed with the intention of serving business purposes but soon was taken up by women for social interaction, kinship and breaking their isolation.

It is ironic that so much of post-modernity is articulated around the feminine when women still have so little voice. A reality sometimes hidden under the illusion of equal access and sex equality, as is the case of the mobile phone. Adopting a technofeminist perspective will allow the analysis of the mobile phone to go "beyond the discourse of the digital divide to connections between gender inequality and other forms of

inequality, which come into view if we examine the broader political and economic basis of the networks that shape and deploy technical systems” (Wajcman, 2004a: 121).

2. On the Gendered Use of the Mobile Phone

*Men and things exchange properties and replace one another;
this is what gives technological projects their full savour.*

Bruno Latour, 1996

Phenomenology approaches to everyday life helps us to understand that meaning is constructed through human actions. These actions have also a material aspect. Don Ihde (2002) says that “technology turns out in most cases to have a fairly large number of ways in which that technology is or can be used and these are never restricted to what designers intended”. The author also presents technology as a “symbiosis of artefacts and users” within a certain context. People involve objects in a “mutual co-construction process” (Caron & Caronia, 2007). And gender is part of that co-construction: “Feminist politics cannot do without an understanding of the power of technology, and technology studies will remain rather stodgy without the tensions and pleasures of gender politics” (Berg & Lie, 1995: 347).

Although the mobile phone is currently one of the most pervasive communication technologies, little discussion of it has been framed from a gender perspective and even fewer from a feminist one. As many researchers point out usage figures between men and women are similar (Hans Geser, 2006), but the differences come out in qualitative use (Hans Geser, 2004), its purpose and nature, as well as in the discourse (D. Lemish & A. Cohen, 2005).

Because the mobile phone is still a recent phenomenon looking at how other technologies were introduced and diffused and how they were gendered can help us to better understand the gendering of the mobile phone. McLuhan said that we live looking at the rear-view mirror. When we create a new media we don't immediately jump into disruptive uses, instead we try to recreate the present by extending former media uses. Thus, established practices and uses get transferred to the new media: “We look at the present through a rear-view mirror. Faced with a totally new situation we tend always to

attach ourselves to the objects...of the most recent past” (McLuhan & Fiore, 1967). The telephone is an obvious media that has been extended into the mobile phone¹³. Just the name we have given the device gives us some clues to this connection. When we call it a mobile phone¹⁴ we are basically calling it a telephone on the move. In Portugal the word we use “telemóvel” translates the same association¹⁵. Thus some interesting parallels can be drawn and insights can be taken from the studies about the gendered use of the telephone.

2.1. Lessons from the Telephone

We march backwards into the future.

McLuhan, 1967

Amparo Lasen (2005) developed an historical comparison of the two technologies: the telephone and the mobile phone. Lasen describes how for decades the industry ignored the telephone as an object of socialization and even came to considered it undesirable, expressing fears of less appropriate contact between men and women of different social classes. The same pattern was again repeated with the introduction of the mobile phone first targeted for professional uses and men because there are punitive consequences for non-conformity to cultural and historical patterns: “Those who fail to do their gender right are regularly punished” (Butler, 2004b: 157). Marvin (1998) notes how the

¹³ We are not arguing that the mobile phone is solely an evolution of the telephone. Ilharco for example argues that the device that most resemble the mobile phone is the TV remote control (Ilharco, 2007a). Our understanding is that the mobile phone is a result of the convergence of several media and that it is increasingly becoming more complex. McLuhan also said that each media contains other media; for him, all media are multimedia with differentiated layers of effects and messages. Nevertheless the telephone is strongly associated with the mobile phone as the most popular feature on mobiles is still voice. Looking at the gendering of the telephone provides valuable insights to the gendering of the mobile phone.

¹⁴ Contrary to other digital technologies that seem to have an identical designation worldwide, of which the Internet is an example, the mobile phone does not share a common designation. For Germans they are “handys” referring to “something that fits in your hand”, for Chinese they are “sho ji” or “hand machine”, for Japanese they are “ketais” that can be translated to “something you can carry with you”, for Americans they are cell phones or cellulars, as well as for Brazilians that call it “celular” and for British they are mobile phones.

¹⁵ This is the reason why we use the word mobile phone throughout the thesis although we use an US English spelling. The English word mobile phone is the one that better translates the word used in Portuguese.

constraints of the producers and promoters of technology go beyond technical or financial issues and are rooted in their interpretation of uses conditioned by its history and culture:

Technologists are not solely members of professional groups; they are social actors with a variety of loyalties that may not always be perfectly congruent with professional goals. Even their professional roles cannot be fully understood without attention to their efforts and aspirations, as members of families, citizens of countries and possessors of gender and race (Marvin, 1998: 232).

These repeated patterns of introduction of technology into the market raise the question of the role of users in the circuit of technology, from design to adoption. Madeleine Akrich (1992) introduced the concept of *script* to draw attention to the how designers create rules about who should use the technology and how it should use it. These rules are inscribed into the technology but this does not mean that they are fixed forever:

A technology turns out in most cases to have a fairly large number of ways in which that technology is or can be used and these are never restricted to what designers intended or what is thought to be the outcome of the technology. This means that any given technology will end up having different kinds of uses in different kinds of contexts most of which cannot even be predicted (Albrechtslund, 2003).

The social construction of technology approach and the notion of *interpretative flexibility* help us to understand that users have a voice. So if gender scripts are inscribed into the technology there is room for not abiding those scripts, for renegotiation of meanings and uses (Berg & Lie, 1995). “Gender scripts” (Oost, 2003:196) is an analytical tool that adds the gender dimension to the concept of “script” (Akrich, 1992, 1995). It is seemingly grounded on the conception that the user and its context are embedded by designers in technological objects.

The construct of the expected user and uses are also build into discourse as the vivid example of electric journals about the inappropriate use of telephones by women clearly puts it: “talkative women and their frivolous electrical conversations about inconsequential personal subjects were contrasted with the efficient, task oriented, worldly talk of business and professional men” (Marvin, 1998: 23). Women were

completely disregarded as users, either for their technical incompetence, or for being frivolous. There was an underlying moral panic of loss of control of men over women.

In the edited book by Ithiel de Sola Pool (1977) about the social use of the telephone the lack of studies of this technology is noted as well as the little consideration that was given to gender. The first analyses were concerned with labor issues in the scope of socialist feminism (Maddox, 1977). Women played an important role in the development of the telecommunications industry. The job was promoted as highly respectable (Martin, 1991) and thus it was a new opportunity for women to work outside the home. Their low wages help maintain the telephone industry during the introduction years, so it is not far from ironic that women's uses of the telephone were dismissed as trivial when it were women that operated the switchboards. Boys were still employed in a very initial phase but were soon dismissed as not being adequate.

Companies prescribed specific uses for the telephone: business, appointments, protection, shopping, and personal conversations. But women continued to use the telephone for their own needs and with time that changed the way the industry addressed this technology (Fischer, 1988b; C. S. Fischer, 1992). Among those unintended practices carried on by women was talking to friends, neighbors and relatives thus breaking their isolation and saving time:

The unexpected uses of the telephone practiced by women influenced the companies' notion of its value. This technology, which had been conceived exclusively for business, seemed to have alternative uses that were worth considering. However, among these uses, only those approved by management were retained. For instance, collective calls, regularly practiced by women on party lines, were gradually replaced by private lines and telephone calls between two parties. However, of the practices retained by the companies, some had been created by women. One of them was the use of the telephone for sociability (Martin, 1991: 154).

The first contradictions regarding the telephone were soon noticeable: The telephone began to be presented as an emancipating tool for women, liberating them from household chores and also women began using the telephone to entail bolder conversations with men but at the same time women seemed to reproduce the same passive behavior that was expected of them in a public outing, with girls being warned not to initiate a phone conversation with a boy (Martin, 1991, 1998; Marvin, 1998). In

these studies there was a hint that the technology could have different meanings for different women but that was not scrutinized. Nevertheless Michele's Martin study of the telephone was an important contribution as it offered a feminist perspective that "shows that women may contribute to the distribution of a technology despite their underrepresentation as direct contributors to its development" (Martin, 1991: 172). At this time a strong association between women and telephone talk may have started and popular opinion started to convey the perception that women talk too much on the telephone.

In his study of women's use of the telephone in North America, Claude Fischer (1988a, 1988b; C. S. Fischer, 1992) explored gendered differences in telephone use from a domestication perspective. His focus was on how men and women differed and he suggested three answers for the gender differentiation, namely the larger social use of the telephone by women. Those reasons were: women were more isolated than men, women had the social role of social managers, and finally that women were more comfortable using the telephone because they were in fact more sociable: "Women developed a greater affinity for the residential telephone than men did, because it was more useful to them in overcoming isolation, in performing their network tasks, and in pursuing an activity that they typically both enjoyed more and were better at than men - sociable interaction" (Fischer, 1988a: 226). The study also introduced the telephone as pressing women to perform more "socioemotional labor - to advice, comfort, organize" (227) but surely this will not be transversal to all women, only to those in a relationship that have to perform that function for their relatives and their spouses' relatives. Thus in the study there is a lack of differentiation between women.

The work by Rakow and Navarro (Lana Rakow, 1992; L. Rakow & Navarro, 1993; L. F. Rakow, 1998) resulted from an ethnographic study of women's use of the telephone in a small Midwestern community. Their study is particularly relevant to the thesis because it offers an account of different women's experience with the telephone, and gives them voices. According to Rakow the telephone could be regarded as both "gender work" and "gendered work" indicating a contradictory meaning with women stating that although the telephone brought to them a high level of gratification and support it also added to their social responsibilities:

The telephone is a site at which the meanings of gender are expressed and practiced. Use of the telephone by women is both gendered work – work delegated to women – and gender work – work that confirms the community’s beliefs about what are women’s natural tendencies and abilities (Lana Rakow, 1992: 33).

Ann Moyal (1989, 1992) provided an Australian case study for the gendered use of the telephone. It was the first national survey, commissioned to develop new telecommunications policies. Similarly to Rakow’s work it used a qualitative and ethnographic methodology based on women’s experiences and voices – “hence no male control sample was employed” (Moyal, 1992: 52). The results of the study stressed the importance of kinship and of the telephone as a “vital social support system” (56). The study brought the voices of different women and the different roles the telephone played in their lives: it showed how for aged women the telephone “offer more effective functional communication or a sense of personal participation and well-being” (60); and how important the telephone was for migrant women and how they “with little or no telephone experience in their countries became significant telephone users” and “how it relieved them from a sense of imprisonment”. In general the study stressed the important role the telephone played in women’s lives and that the “feminine 'information flow' may be seen to represent a critical social support system that underlies family, community and national development, and to be, arguably, as important to national well-being and progress as the more politically visible and highly rated masculine business information flow” (Moyal, 1992: 67).

In all the studies, the telephone was shown to have evolved from a technology promoted and prescribed for men to a technology that became associated with women. Women became heavy users, especially for the residential telephone (Adler, 1993; Frissen, 1995; Maddox, 1977; Moyal, 1989, 1992). Nevertheless this feminisation of the telephone carried with it a misconception of women’s uses that were dismissed as gossip, chit-chat, frivolous and thus object of reprisal or jokes (Aronson, 1971; Fischer, 1988a; C. S. Fischer, 1992; Martin, 1991, 1998). Another interesting conclusion from all the studies is that the role of “hello girl” from when women operated the switchboards seems to have prevailed across time with “women functioning as operators in the home” (Frissen, 1995: 85). Women reported being responsible for answering the phone and making all the social or family related calls: “traditionally it is considered to be women’s work to put time and energy into the maintenance of close

social relationships” (Frissen, 1995: 86). It is here that the notion of “gendered work” (Lana Rakow, 1992) becomes important, she notes how women regard the telephone as part of their job, of their responsibilities. This feminization of the telephone could account for the lack of research on the theme: “as a domesticated and feminized technology, it also become a “mundane” technology (...) Technical apparatuses that do not fit descriptions of being “heavy”, “advanced” / “high-tech” or “dangerous” and are, instead, “familiar”, “easy to use” and predominantly used by women can find it difficult to retain their definition as technologies” (Lohan, 2001: 189-190).

As for the impact on gendered space, the telephone had a profound impact on women’s lives. It started by offering them a new opportunity to work outside the house and as social uses took up it offered women a “neighbourhood” (Moyal, 1989, 1992) and a new sense of safety and support. It also enabled them to “commute between public and private spaces” (Frissen, 1995: 90), specially for working mothers that could keep track of their homes while in their jobs. A role that will see further enhanced by the mobile phone.

With the introduction of the mobile phone researchers began to analyze how some of the gendered patterns of the telephone would translate to a mobile device and one of the first conclusions was that old patterns were being repeated, namely the refusal of sociability as an interesting use and the targeting of men and instrumental uses rather than women and social uses (Frissen, 1995). As we evolve from the telephone to the mobile phone it will be interesting to notice how many of these characteristics prevail. Can we speak of a feminine culture of the mobile phone? Does it play the same role in their lives? Is it still a socialization tool? One that offers safety and security?

2.2. Men and women on the phone

You just don’t understand men and women in conversation.

Tannen, 1991

Similarly to the telephone, the mobile phone has been neglected as a research object in communications studies, especially from a gender perspective. However, in the last few

years we have seen the emergence of a mobile phones literature and the development of a mobile studies field. From the gender perspective, we could divide the studies about gender and mobile phones into two categories: the studies centred on differences between men and women, and studies that offer a more complex account of gender practices. Among the first there are plenty of quantitative studies that provide a mapping of the gender-related differences and status quo. In them, the mobile phone is described as an egalitarian technology, contrary to other technologies where the gender gap still persists as is the case of the Internet and computer usage. After a first introduction phase where women and even girls lagged slightly behind (Rich Ling, 2001), justified by men's positive attitude towards innovation (Richard Ling, 2001), women, as in the telephone, soon became heavy users surpassing men in certain cultural contexts and uses. In a comparison of mobile and internet users, women exceeded males in all categories of mobile phone use (Rice & Katz, 2003) and seem to favour written communication (Hans Geser, 2006). In Portugal as in what regards gender there seems to be no meaningful difference in individuals that have a mobile phone, it is a 50/50 split between men and women, but amongst those that do not have a mobile phone there is a majority of women: 57,7% women against only 42,3% men (Cardoso, Gomes, et al., 2007). According to the same survey the group of non-users is mostly compounded of older people, of the female sex, with low education levels and generally inactive.

Studies centred on differences between men and women offer a contradictory view with some author claiming that the mobile phone, similarly to other domestic technologies reinforces traditional roles; other presenting it as a tool that has levelled the playing field for men and women; and finally other authors proposing the mobile phone as a disruptive technology for gender roles. Most of them do not account for this contraction.

More recently, some of the research has gone beyond the statistical approach to gender or the polarization between men and women, to explore differences between women.

2.2.1. Reinforcing Traditional Roles

One of the main themes related to the reinforcement of traditional roles presents the mobile phone following the same pattern as the telephone, of women using it to

maintain social networks and coordinating family life (D. Lemish & A. Cohen, 2005; Rich Ling, 2001; Lohan, 2001; Plant, 2001a; L. Rakow & Navarro, 1993).

The work of Rakow and Navarro (1993), one of the first studies about gender and mobile phone usage, emphasized the mobile phone as a reinforcement of traditional gender roles, namely women as mothers and described remote-control mothering as having traditional gender choreography:

The cellular phone seems to be an extension of the public world when used by men, an extension of the private world when used by women. That is, men use it to bring the public world into their lives. Women tend to use it to take their family lives with them wherever they go (1993: 155).

The mobile phone is also viewed as a safety and security tool for women (D. Lemish & A. Cohen, 2005; Rich Ling, 2001; Plant, 2001a). This trend can be regarded as a fulfilment of a traditional gendered behaviour towards women: “It appears that, at the broadest level, mobile phones provide females with a sense of security that is considered less necessary for men. In this sense, mobile communication technologies are becoming a tool associated with protecting “vulnerable” groups such as women, children and elderly people.” (Castells, et al., 2004a: 45). In Rakow and Navarro’s study they conclude that:

Cellular telephone technology may appear to provide a solution to two important problems faced by middle class, suburban women: the problem of safety and security in a violent and mobile society, and the problem of carrying out family responsibilities across barriers of time and space (L. Rakow & Navarro, 1993: 155).

In Portugal, women are reported to use the mobile phone to feel safe when alone in a public space as shown in table 1.

Table 1.*The Mobile Phone as Source of Reassuring*

While alone and waiting for someone, did you ever use your mobile phone...		Male	Female
So no one would bother you	Yes	46%	54%
	No	51%	49%
To feel that you were not alone	Yes	46%	54%
	No	51%	49%

Source: Survey “A Sociedade em Rede em Portugal 2006” [Network Society in Portugal], CIES-ISCTE

Women also feel calmer when they have their mobile phone with them: 49% of men against 51% of women totally agree with this statement. Similarly women tend to feel more anxious when they cannot have the mobile phone with them: 55% of women compared with 45% of men totally agree with this statement (Cardoso, Gomes, et al., 2007). In the study about new media uses by young people in Portugal (Cardoso, Espanha, & Lapa, 2007), girls seem to obtain their first mobile phone at a younger age: 75.6% of girls have their first mobile phone at thirteen or less compared to 69.4% of boys (173); Parents also seem to support more the phone expenses of girls (168) and for a higher percentage of girls it is parents that provide them with their first mobile phone (174).

Another difference attributed to women in the use of mobile phones is a more emotional and social approach, contrary to men that stress instrumental uses. Rich Ling (2001) in his examination of the adoption of mobile telephones by teenagers in Norway identifies that the “symbolic value of the device is more important for men than women” and thus men are centred on ownership and women on use. So even among teenagers, generally regarded as the source of the most innovative uses and transgressions, there seems to be a desire for rules and abiding those rules. They are guardians of codes and subjects of permanent evaluation and criticism (Caron & Caronia, 2007). Boys and girls reproduce gender stereotypes: Boys are more prone to explore new functionalities and features while girls tend to focus on communicational functions (Cardoso, Gomes, et al., 2007; H. Geser, 2006b; J. Katz, 2006; Skog, 2002).

In Portugal, the national report on mobile phone usage *Mobile Portugal* (Cardoso, Gomes, et al., 2007) seems to also point to the same traditional gendering: Men stressing instrumental phone uses and women using it as medium for personal and emotional exchange. Men seem to make a more diverse use of the available functionalities of the mobile phones and are more prone to having 3G phones: 54% of men compared to 46% of women. For all functionalities (alarm clock, calculator, e-mail, MMS, games, applications) the rate of men is always superior to that of women (52). The same is true for services, although the global usage is very low; Men are also more prone to try new functionalities: 30.2% of men against 22.8% of women would be interested in using the mobile phone for banking operations (59).

Dependency is also strongly associated with women: “significantly more women than men have assimilated the mobile phone as a central component of their personal existence: by integrating it into their lifestyle or by becoming so dependent on it that life without it has become unimaginable” (Hans Geser, 2006: 21). This dependency would translate a different level of emotional attachment. In the study about new media uses by young people in Portugal (Cardoso, Espanha, & Lapa, 2007), a slight higher percentage of girls tend to own a mobile phone and they tend to value it over other media (167). A higher percentage of girls, 36.6%, say their life would change for the worse if they stayed two weeks without their mobile phone, for boys is only 22,5% (175); Girls also find it harder to turn the mobile phone off (177).

Another trend that transfers from the telephone to the mobile is undervaluing women’s conversations. When women talk on the mobile they it is still labeled as gossip (E. Green & Singleton, 2007) and women are considered to talk too much on the phone, while in fact most quantitative surveys point to men as making more calls. Women themselves echo these arguments for being more “chatting” and even convey a certain sense of guilt (E. Green & Singleton, 2007; D. Lemish & A. Cohen, 2005; Lohan, 2001).

On the supply side mobile phone companies also seem to design phones to match the traditional female and the male cultures (Skog, 2002) embedding in the technology what Ellen van Oost designates as “Gender Scripts”. These can “illuminate how gendered user representations are an inextricably part of designing artifacts” (Oost,

2003: 194) Mobile companies and marketers strive for a feminization of the mobile phone but they do it using gendered stereotypes, reinforcing femininity and heteronormativity (Shade, 2007) and (Shade, 2007) stressing fashion and the mobile as an accessorizing practice (Mortberg, 2003). Even when reports says that, in what regards personalization through a picture, a screensaver or ringtone men tend to personalize their mobile phones more: 55% compared to 44% of women (Cardoso, Gomes, et al., 2007).

2.2.2. Leveling the Playing Field

Gender is seldom considered an important determinant in explaining differences in mobile usage. As little statistical differences are found, researchers tend to stress more other factors such as class, education, and specially age.

Hans Geser (2006) proposes that the mobile phone “levels differences between boys and girls” contrary to other technologies that tend to accentuate them but this is an empirical study and limited in scope, restricted to vocational schools in Zurich (Switzerland): comprising young apprentices, mostly between 17-21, in the field of construction, office administration as well as fashion and design, thus no wider generalizations can be made. Some authors sustain that these leveling will be maintained and that as the mobile phone becomes a mature technology differences in usage between men and women tend to fade, supporting the thesis that “the higher the ratio, the more equal it is [and] gender differences tend to disappear with the increase of mobile penetration rates” (Castells, et al., 2004a: 52).

Leslie Shade (2007) makes a similar argument. He presents an American case-study where he uses the concept of “gender scripts” (Oost, 2003) to analyze the feminization of mobile phone in North America. He makes the argument that the mobile phone is transforming the way women deal with technology by leveling differences between sexes. If it is true that women seem to approach the mobile phone in a more masculine manner, the inverse is also true. Sadie Plant (2001a) makes a similar argument when she says that mobile phones are making men more chatty and communicative. For the author, there seems to be a feminization of the mobile phone, not in the sense explored in the telephone usage where women became the main users but in the sense that the

uses generally attributed to women (social, kinship, emotional) were also being performed by men. Boundaries are not only being crossed but also being blurred.

But if gendered differences do not come out in statistical observation, they still manifest in discourses. The case study of Israel (Cohen, Lemish, & Schejter, 2008; D. Lemish & A. Cohen, 2005; D. Lemish & A. A. Cohen, 2005) also offers notes on this difference between methodological approaches and practices and discourses. By combining interviews with observations of actual practices the authors were able to identify the contradictions between the quantitative analysis of the habits that pointed towards a feminization of the use and the data from the interviews through which the mobile phone came out as another site for men and women to perform their traditional gendered identity:

The discrepancy between the conventional construction of gender in discourse about the mobile phone versus the actual practices associated with it that indicate a process of feminization raises a host of new questions regarding the gendered nature of technology and processes of social change. It brings forth once again the argument that gender continues to be constructed through performance and social practices even in situations that are gradually becoming less gendered. Normative discourse seems to remain one such central mechanism, apparently quite resistant to change. It is not only the behaviors themselves that should concern us; it is also the discourse about them through which identity is constructed and negotiated (Cohen, et al., 2008: 167).

In the case study of Israel (Cohen, et al., 2008), the authors make a parallel to the evolution of the telephone and the role played by women in the creation of a “calling culture”. In their case study the mobile phone was considered to play a role in the “blurring of gender differences in the actual use of communication technologies” (163). But the authors also state three dimensions where women seem to differ from men: men stressed the importance of the device more than women, men adopted a more active role towards the function of the mobile phone in their lives, while women showed a more passive role: “Men tended to talk more about being more able to access other (...) women, on the other hand, discussed themselves in a passive tone as they were more concerned about other being able to reach them” (166) and finally only women were concerned with using the mobile phone to facilitate household management.

The same phenomenon is noticed in Norway (Nordli & Sørensen, 2003) where in observation men and women displayed equal skills but “there were gender differences in the way our male and female informants talked about their skills in using the mobiles.

As expected, several women were quite modest in their assessment of their own skills and tended to see their husbands or boyfriends as more skilled”.

2.2.3. Performing New Meanings

We can expect, as we women intensify their usage of technological artefacts, “a transformation of women’s interests stereotypes” (Skog, 2002). Could women, through the mobile phone, be building a more intimate relationship with technology? Are they are learning to accept new media? Are they becoming producers? Are they performing new cultural meanings? Examples of the performance of new meanings are still scarce.

On the transgression side we have the study of the use of camera phones by young South Korean women (D. Lee, 2005). Lee describes how young South Korean women appropriate the camera phone for cultural production, despite the prevalence of advertising that shows men snapping pictures of women. In this context women are using mobile phones to perform new meanings:

[...] These women are not the mere owners of camera phones, but performers who create various cultural meanings. They develop a more intimate relationship with technology, challenge the convention of gaze, give meaning to what is taken, and circulate their own expressions (D. Lee, 2005: 12).

2.3. Accounting for complexity in mobile gender practices

Arnold in his paper *On the phenomenology of technology: the "Janus-faces" of mobile phones* (2003) uses the Janus metaphor to open the “possibility of the presence of tension and contradiction in accounts of sociotechnical outcomes” (231) and uses the specific case of the mobile phone to exemplify the “Janus faced performance of technology”. The author provides us with an analytic frame that allows for irony and paradox to be taken into account. It also collapses “the distinction between the human and the technical as well as the cause and effect” (240) thus humans and mobile phones constitute a “sociotechnical hybrid” when the phone is used. In regards to gender, Arnold presents the mobile phones as both “boyish” and “girly”, “matriarchal” and “patriarchal”: “In the case of the Mother the mobile phone might well mediate the

performance of a traditional maternal role, but it also mediates her performance in the role of contemporary breadwinner” (250).

Larissa Hjorth’s (Hjorth, 2005b, 2007, 2009a, 2009b) study of the Asia Pacific region is a rare example of an analysis of differences between women. Her analysis is mainly centred on how personalization practices translate women’s identities and their intimacy with mobile technologies. Although focusing on a single sub-group, older women, Sri Kurniawan’s study of older women’s use of mobile phones is also developed under the belief that it is important to study differences between women (Kurniawan, 2006). The case study of women above the age of 60 in the United Kingdom helps to dismiss the stereotyped notion that older women are not interested in mobile technology, on the contrary, this study shows “that older women are keen to understand, enthusiastic to learn and quite well informed about some advanced features of mobile phones such as MMS (multimedia messaging services)” (Kurniawan, 2006) .

2.4. Conclusion

Most of the work carried out on gender and mobile phones is done in a comparative approach, masculine versus feminine, which has inhibited a more comprehensive understanding of the changes that might be occurring. Some scholars have recently been addressing this issue, namely Larissa Hjorth (2005b, 2009a, 2009b) and Leopoldina Fortunati (2009).

In the dichotomist approach, the gender category is not problematized; rather it is used as an operative tool of analysis. They present the mobile phone as having contradictory meanings but this contradiction is not account for or addressed. Thus we have studies that present the mobile phone as reinforcing traditional roles (D. Lemish & A. Cohen, 2005; Lana Rakow, 1992; L. Rakow & Navarro, 1993), other that offer an account of the mobile phone as leveling the playing field between men and women (Hans Geser, 2006; Shade, 2007) and finally as a tool for performing new meanings (D. Lee, 2005).

This approach reinforces the concept of the woman as a uniform category and does not allow for the diversity between women to be taken into account. Fewer studies offer a

more complex account of mobile gender practices. The precursor could be found in Arnold's work that presents the mobile phone as both "boyish" and "girly" (2003), in Larissa Hjorth's analysis of the Asia and Pacific (Hjorth, 2005b, 2009a, 2009b) and Sri Kurniawan study of older women and mobile phone usage (2006).

The thesis is inscribed in this more complex account of gendered practices and is aimed at answering Leopoldina Fortunati's challenge: "it is time to develop research that is specifically designed to study the role, meaning, representations, models, and practices of use of the mobile phone beginning from women's life conditions" (Fortunati, 2009: 23). It is also rooted in the observation that mobile phones are not neutral objects, but rather that they "embody and articulate social and cultural relations" (E. Green & Singleton, 2007: 522) and that social relations are also gender relations. The gendering of those relations is inscribed into the device from design to appropriation (Oudshoorn & Pinch, 2003; Oudshoorn, Saetnan, & Lie, 2002).

Part II – Mapping the Portuguese Mobile Society

It is the framework that changes with each new technology and not just the picture within the frame.

McLuhan

Our understanding is that gender is contingent and knowledge about gendering practices is situated (Haraway, 1991) thus in this part II of the thesis we provide the knowledge about the context of the gendering practices under scrutiny:

As gendered subjects, our research is situated within specific discourses, times and places, class relations, knowledge structures, and so on. Thus we do not insist that our research has *the* answers but insist that we produce knowledge valid within certain contexts and frames of analysis. This applies to the concept of technology as well as that of gender (Berg & Lie, 1995: 343).

We begin by offering a portrait of Portuguese women's lives. Portugal went through a dictatorial regime that ended in the 25th of April of 1974 with a political revolution that opened the country to democracy and to a global market economy. This transition was marked by important social and cultural changes that had a strong impact on women's lives. According to Gustavo Cardoso Portugal is still in transition to the network society (Cardoso, 2008); a transition characterized by the increase in the levels of education, civil participation and technology adoption.

We then characterize their use of the mobile phone through the analysis of the quantitative data from the 2006 survey "The Portuguese Network Society"¹⁶ (Cardoso, Espanha, & Gomes, 2006). Finally we give women voice by telling their life-stories based on interviews to 37 women across seven life-stages.

¹⁶ The survey was one of the two surveys conducted under the project: The Portuguese Network Society. It consists of an extensive survey questionnaire by direct interview to a statistical representative sample of the Portuguese population. The sample was composed by 2000 individuals living in the main continent of Portugal with or above the age of eight. The interviews were conducted from April to June 2006. The data was analyzed using SPSS. The former edition of the survey was from 2003.

1. Gender Practices in Portugal

The freedom to guide ourselves applies hereafter without gender distinction but freedom is always constructed “in a situation”, from norms and differentiated social roles, that don't seem to be condemned to disappearance.

Gilles Lipovetsky, 1997

The discussion around gender equality in Portugal is a theme we can scarcely do justice to in a single chapter. Nevertheless, any discussion of the relationship of women with technology necessitates such an attempt.

Portugal has a paradoxal situation regarding women's rights and the feminist movements. Women don't identify with the feminist ideals and they do not acknowledge the gender discriminations that still occur in their everyday lives like not being promoted because they are burden with child care activities or household management (Vicente, 1998). This was also the case with the women interviewed. When asked if they ever felt discriminated for being a woman, the vast majority refused to be labeled as victims of discrimination although their accounts of daily routines, needs and expectations for the future, clearly show an unequal gender division of labour and traditional patterns of self-representation. One clear example of this contradictory discourse is Sofia's interview, where in a first instance she denies ever being subject to discrimination but then talks about her divorce and how she felt burdened by all the family responsibilities and also she describes a traditional gendered division of tasks and responsibilities:

I never felt discriminated for being a woman. Not here where I have been working for a long time, neither when I used to work as a lawyer. I think a big part of being discriminated has to do with the way we handle things. Fortunately we are in a country where we have equal rights for men and women, not only in the law but also in daily practice. Discrimination is restricted to small and marginal clusters of society (...) After my divorce my routines are the same because I used to do everything anyway, we never used to share family responsibilities. He did the taxes and the rest was up to

me. As for technology that was always a masculine task around the house but curiously when he left I decided to buy a computer which for me it is something very strange. (Sofia, 47 year-old, human resource manager, divorced, mother of two teenagers, sole caregiver)

There is also a view of feminism as old-fashioned and anti-feminine as expressed in a interview¹⁷ by Vera Nobre da Costa, head of a multinational advertising agency, cited by Ana Vicente:

I am completely anti-feminist, I am feminine. I like to dress well, I like clothes, I love to go shopping, I like shoes and bags, so I don't have an anti-feminine attitude. Of course I think it is unfair to set different salaries for men and women but that's not feminism, that being human. It is unfair, it is like setting different salaries for a tall or a short man. What happens is that a lot of women have constraints because it has happened to me not being able to promote a woman because they could not guarantee that they would be able to leave at eight or nine p.m because they had to pick up their kids from kindergarden or make dinner for their husbands. I think women are to blame because respect cannot be given, it has to be earned (...) The battles of feminism no longer matter that much, women already have the right to vote and there is a larger involvement in public life (...) If I had kids, honestly, I probably would not be where I am today. (1998: 18-19)

How in fact do Portuguese women live? What are the constraints they face in everyday life? By probing into the structures of society: family, schools, companies, we hope to be able to provide a summarized yet insightful account of women's everyday lives.

1.1. Family

In Portugal there is a high percentage of families where women are the sole or main providers for the family. There is also a growing sense of parity between the members of the couple that has led to the disappearance of laws that placed men as heads of the household (Cruz, 1996; Vicente, 1998). In a report about gender equality Sofia d'Aboim Inglez (1997) summarizes the main transformations: a drop of the birth rate, the reduction of the average number of family members, the rise in the divorce rate, the rise of sole caregivers and sole women. The changing roles of women and the new acquired

¹⁷ The interview was given to the magazine "Grande Reportagem" in July 1996

rights like divorce, equal pay, and free access to birth control, gave way to new family structures.

One of the main transformations that also affects women's lives and their decisions to postpone maternity or/and have fewer children is also connected to a loss in family support. Many of the women who are now in the age to have children have mothers between the age of 40 and 60 who are still in the workforce and thus are not able to provide child caring or family support and allow younger women to have greater flexibility.

Many researchers have searched for an explanation of why women still accept an unequal distribution of chores in the home. On one hand there is a centuries old tradition of women being responsible for the home and for the children that induces a social predisposition that it is hard to overcome as social structures have been organized around it, but also it could endow women with a sense of power (Vicente, 1998). Gilles Lipovetsky has also shared this argument in a recent interview¹⁸ when questioned about the changes since he had written the book *La Troisième Femme* (Lipovetsky, 1997) :

I think that hypermodernity is also the acknowledgment that there are differences and that feminism today is no longer what it was. Women today want to be citizens, they want to have responsibilities in their jobs and the political life, like men, but at the same time they do not renounce their former roles like the family role and the aesthetic role. It is very improbable that they will do it in the future. People think that as women gain a statute in all things similar to that of men they will renounce their former roles but that is not true. We can see women that are very well regarded in the job market but at the same time want to take care of their children (...) women complaint about men not doing their share of housework but they don't complaint as much about raising their kids Why not? Because that task gives them recognition, it is not a bore (...) because taking care of a child it is not something that strikes our identity or leaves us poorer, on the contrary is something that makes us richer. That is why I think women will always insist in being responsible for raising the children and that roles that have been an historical heritage will not necessarily extinguish themselves.

Although a source of symbolic power being the main responsible caregivers for family, especially children, is a source for discrimination in the workplace as explained by Ana C. that although not stating that she was subject to discrimination she recognizes that women have fewer opportunities than men because of their family responsibilities:

¹⁸ Carla Ganito conducted the interview in March 2010 at the Portuguese Catholic University in the scope of the launch of his new book "O Ecrã Global" [The Global Screen] co-authored with Jean Serroy. The interview was then published in the forthcoming issue "Post-Gender" of the journal "Comunicação & Cultura" (I. Gil & Ganito, 2010).

I never felt that I was discriminated but I see that in the job market men have more opportunities than women. Especially when women get to the age of having kids. I see men changing jobs more easily and being promoted because they have more freedom. When a woman has kids she holds on to the job she's got, they are more afraid to risk changing jobs. (Ana C., 34 year-old, journalist, mother of an infant)

These constraints in balancing work and family life will be further explored in a close articulation with the use of the mobile phone in the chapters concerning space and time, nevertheless this unbalance is rooted in a essentialist view of women, of biology as destiny, that is still widespread in the Portuguese society (Vicente, 1998). In a survey about the sharing of family responsibilities, 91,7% of those inquired agreed with the sentence: “women, because of their unique nature, are best suited to take care of family than men” and women did not diverge much from men with 92,3% of men and 90,7% of women agreeing with this sentence¹⁹.

Family responsibilities affect particularly sole caregivers. With the rise in the divorce rate the number of families with only one house head is increasing and women constitute the majority of those house heads be it by divorce, because they have become widows or due to social constrains that pushed them into being single mothers. Men are left with the advantage of having more availability to remarry and to pursue their love life (A. Torres, 2001), and “it is very common for parents to divorce their kids when they divorce their wives (...) courts still give mothers a greater share of the responsibility and thus, the father disregards his financial responsibility; 82% of alimony processes are initiated by women” (Vicente, 1998: 41).

¹⁹ National Survey about the Sharing of Family Responsibilities, CGTP, Lisbon, 1991.

1.2. Work and Employment

We must, in my view, always have the right to promote the best man for the job, regardless of sex.

Sir Humphrey, in the BBC series “Yes Minister” (1982)

In Portugal the activity rate sustains its rise with the contribution of women's participation in the labour market. Women are thus responsible for a big share of the country's wealth creation and that is only when paid jobs are considered; this number would increase if we were able to quantify unpaid labour that is mainly a feminine effort such as housework, taking care of children, the sick and the elderly. This dimension of women's lives is probably one of the characteristics of the Portuguese society that will have a profound effect on their relationship with technology. In Portugal, women entered the job market most notably in the sixties as a reflection of the economic and political conjuncture. The colonial war and emigration made women's work a necessity for the economic development of the country. Women have since then earned their place in the paid labour market and Portugal has reached one of the highest levels of female activity in Europe. In a phase of economic growth, prosperity and plentiful job offers where the working force is scarce, women are a valuable resource as they are generally underpaid (Perista, 1999). But, in an economic crisis where unemployment rates soar, as the one we are living, women become the main target and the first victims of unemployment: in 2007, the unemployment rate for women was 9,7% compared to 6.6% for men and above the European average for women which is 7.8%.

Portugal is considered a peculiar case in the scope of the European Union countries because if, on one hand the State is not able to provide a satisfactory level of supporting services such as schools and maternity protection, on the other hand is the country where women most work full time (A. C. Torres, et al., 2004). In 2007, 61,9% of women aged 15 to 64 were employed, which is above the European average of 58,3%.

Portugal is also the European country where female employment rates are least affected by women having children. But that does not mean that women have equal opportunities in the job market and most of that loss of opportunities is in fact connected with maternity as explained by women at life-stages of motherhood:

In my job I feel that I have been discriminated for being a woman. Although I have a great relationship with my husband we did make a choice in what concerns the children's education that occupies me more. I don't regret making that choice but I don't get to do a lot of things because of my family and responsibilities at home, for example I don't get to do a pos-graduation course. And in the relationship with colleagues and management, being a mother is still an issue. Having to be there for the family is socially condemned. Having to help a family member who is sick is more acceptable than keeping up with your family life, like being home early to pick up the kids from school. Even in daily interactions with sponsors, sometimes they want to talk to someone in charge – a man – before deciding on a subsidy. Maternity is not part of organizational life. I stand up for myself but I felt it everyday. (Sara, 35 year-old, social worker, married, mother of two children)

I think that being a woman never constrained my life but sometimes indirectly the fact of being a woman has its weight. It is enough to say that we are asked about having kids in job interviews. In my internship interview I was asked if having a child would influence my performance at work. In salaries there also differences between men and women. (Ana A., 34 year-old, web content producer, married, mother of an infant)

In the job market I felt that I had fewer opportunities. My daughter was little when I applied to a bank and in the interview they told me that it was a pity I had a daughter because this way I could not work nights. I told them that would not be a problem but still they preferred a man. Even in the place I am working a man just got in and he has had more opportunities to be promoted because he is a man. (Fernanda F., 52 year-old, computer manager, married, empty nester)

Discrimination not only translated into fewer opportunities but also differences in wages that still persist even when laws regarding equal pay date to 1979. In 1993 the average

monthly wage for women was 76% of that of men (Silva, 1993). Between 1995 and 2000 women earned approximately 77% of the average monthly basic wage of men and in 2005 women still earned 19.3% less than men and the gender gap is even more pronounced when average earnings are considered because in this case the gap was 22.6% in 2005²⁰. These differences were also reported by some of the women interviewed, once again across life-stages and generations:

Oh yes I felt discriminated several times. I had a male colleague that did not have to do the cleaning tasks and still earned more money. It was a big difference in salary. (Manuela, 56 year-old, pre-retired saleswoman, divorced in a new relationship, empty-nester)

Yes I have felt discriminated. The first time I noticed it was in a summer job picking up pears. Wages were different for men and women. Then I noticed that job descriptions were understood differently depending on whether you are a man or a woman and they were also paid accordingly to gender. I feel we always have to do more to earn the same amount of respect. Because I work with a lot of men I have to excel to show that I am capable of doing a great job. There is a lot of prejudice towards my job and because I am not an engineer. (Patrícia D., 36 year-old, marketing manager, nesting)

Although regulation and legislation are in place, gender discrimination is very insidious and many times is connected to invisible blockages, as one of the women interviewed explained, or the lack of availability to network, or simply with the jobs women tend to occupy:

I never felt discriminated. In my company we have several politics concerning women's promotion to high rank jobs. I even participated in some initiatives. But in the support jobs we are very penalized in terms of promotions and we could say that women mainly occupy those jobs. (Estela, 36 year-old, communications manager, divorced, mature independent)

²⁰ Source: MTSS/DGEEP

My perception is that I was never discriminated for being a woman. But if we look at the statistics, objectively there are fewer opportunities for women, even at this company. There is an invisible blockage. (Cecília, 46 year-old, human resource technician, divorced, mother of a teenager, sole caregiver)

It is funny because when I started to work I was the only woman doing what I did, going to construction sites. But I was always respected. But in terms of opportunities to develop your career there are differences that are connected with society at large more than company policies. If the abilities are the same, when are chosen over women because of their perceived availability, because women are thought of as being occupied with the house and the kids. I don't think that is true. They can even work fewer hours but they are more focused. But men also do their own lobbying. After work, men more easily go for a drink or networking and women have other things to do and that makes them loose in the run for corporate promotions. (Susana, 36 year-old, engineer, single, mature independent)

It is also visible in the precarious nature of women's jobs: In 2006, 21,7% of women has a non-permanent contract compared to 19,5% of men²¹. Women also predominate at lower qualification jobs and are scarce at top positions: In 2005, women accounted for only 37,6% of managers and 43,6% of middle managers.

1.3. Education

Women came late to formal education. The first feminine high school was created in 1906 but education suffered a strong blow with the "Estado Novo" regime that reduced the mandatory school years and closed down many elementary schools. But if they came late they are now gaining ground with a high rate of women at the University

²¹ National Statistic Institute, Labour Force Survey 2006

level, in 2009 53% of University students were women²². Portugal also stands out in the rate of women successfully completing secondary and post-secondary education, which is 57% in Portugal and Germany²³. In 2001 there was a turning point with women surpassing men in university qualification, 8,7% of the female population versus 7,0% of the male population. Nevertheless due to a historical deficit, there are still more women than men without any formal education, 11,8% of women versus 6,4% of men²⁴.

But if in access the situation seems to favor women, stereotypes still come out in the choice for fields to study. In 2009 of all students enrolled in technologies of information and communication courses only 16,6% were women and the rate is also below parity if we take science, mathematics and computing as a whole with 46,6% of women²⁵. Also there are more men than women employed in computing jobs. Men also show themselves more reluctant in choosing fields that are typical classified as feminine (Vicente, 1998) but the reasons for this are not very clear in the research that has been conducted, stereotypes surely play a part but practical reasons such as lower wages for typical feminine jobs such as nurses or kindergarten teachers must also be part of the equation and stir men away from these choices.

1.4. Leisure and the use of Information and Communication Technologies

Mainly due to time constraints women have little time for leisure activities. The lack of time to leisure activities or media usage was clear in the daily accounts of the women interviewed. In a subsequent chapter we will dedicate a closer analysis to the theme of time in women's lives but the words of Ana D. are quite instructive:

We have TV on the living room and in our bedroom but we end up not seeing much TV in the bedroom because I immediately fall asleep (...) If I had help around the house I could watch more TV or read a book without falling asleep because I would not have to wake up earlier to do the house

²² Source: Pordata, <http://www.pordata.pt>

²³ Eurostat, 2004

²⁴ National Statistics Institute, 2001 census

²⁵ Source: Pordata, <http://www.pordata.pt>

chores. (Ana D., 39 year-old, business owner, married, mother of two children)

In their study of Portuguese media audiences Susana Santos and Gustavo Cardoso (Santos & Cardoso, 2007) found four profiles for media usage and in all the profiles men had a higher frequency in the set of media activities what were object of the study, watching TV, listening to radio, listening to music, reading newspapers and magazines, go out for a walk, reading books and watching videos or DVDs. Watching TV is the most common activity for both men and women in all the profiles and in some women even slightly surpass men, for example in the subgroup 35-54 years 98% of women watch TV versus 95,2% of men. But the gap widens dramatically in other activities like listening to the radio (86% of men versus 76,5% of women in subgroup 35-54) or reading newspapers (73% of men versus 52% of women in subgroup 35-54). And it is even wider when related to media Internet activities, for example 21% of men read online newspapers versus 15% of women in the same subgroup.

Although the use of computers and the Internet have been on the rise for both men and women, there is still no equal access. In 2008 there was still an eight-point gap in computer and Internet use as shown in tables 2 and 3.

Table 2.

Computer use by Gender 2002 to 2008 (%)

Individuals Between the Ages of 16 and 74

	2002	2003	2004	2005	2006	2007	2008
Men	33	39	40	43	46	50	50
Women	22	33	34	36	39	42	42

Source: INE/UMIC, National Survey to the Use of Information and Communication Technologies by Families 2002 - 2008.

Table 3.

Internet Users by Gender 2002 to 2008 (%)

Individuals between the Ages of 16 and 74

	2002	2003	2004	2005	2006	2007	2008
Men	24	29	32	35	39	44	46
Women	15	23	27	29	32	36	38

Source: INE/UMIC, National Survey to the Use of Information and Communication Technologies by Families 2002 - 2008.

Many explanations are offered for the persistence of this gap that Turkle designates as “computational reticence” (Turkle, 1988), that range from a lower level of qualifications and formal education, processes of socialization that anchor women’s relationship with the machines to fear and a computer culture that is hostile to women. Portuguese women are no exception to a culture that does not associate technical expertise to women, as evident in one example provided by Rita:

I felt very stereotyped as a girl when I went to live in Oporto, in the north of Portugal. It was the little everyday things like home repairs. Once, someone went to my house to fix the washing machine and he gave a written note to give to my husband when he got home explaining what he had done to fix the machine. When I explained that I did not have a husband, the guy simply told me to give it to my father instead. (Rita, 24 year-old, designer, dependent)

1.5. Conclusion

Gender inequality has many distinct and dissimilar faces (...) what is needed is not just freedom of action, but also freedom of thought – the freedom to question and to scrutinize inherited beliefs and traditional priorities. Informed critical agency is important in combating inequality of every kind, and gender inequality is no exception.

Amartya Sen (2001)

The Portuguese population does not take gender issues as a main concern, “they live their everyday life without questioning the social construction of gender or equality. A small number is involved in a conscious construction of equal rights” (Vicente, 1998: 195). Equality is accepted but many times it is not translated into everyday practices. In this, Portugal is not an exception but in balancing work and family life Portugal is in fact considered a peculiar case in the scope of the European Union countries because if, on one hand the State is not able to provide a satisfactory level of supporting services such as schools and maternity protection, on the other hand is the country where women most work full time.

Family is a source of symbolic power for women but is also structured as a major constraint as women have fewer opportunities than men because of their family responsibilities. Without the burden of taking care of children, elderly or the management of the household, men have more freedom to manage their time and their space like accepting a job further from home or spending leisure time with friends and colleagues after work.

Nevertheless the high level of women's employment does frame a very different relationship with technology and the mobile phone as we will see in subsequent chapters.

Although Portugal can be considered as adopting best practices in terms of the laws protecting women's rights, gender discrimination is insidious. Rules are in place but social reality tells a different story. There are invisible blockages that inhibit women's progression in their careers and even freedom of choice or expression. The same lifestyle or life options get different social readings depending on whether is a man or a woman taking them, like the option to get divorced, have an intense social life, decide not to have children. This also translates to visible indicators of gender discrimination such as wage gaps, higher levels of job precarity and lack or low representation in high administration or high management positions.

2. The Portuguese Mobile Society

Technology is neither good nor bad; nor is it neutral.

Melvin Kranzberg, 1986

According to the latest report on the Portuguese mobile market (Cardoso, Espanha, Araújo, & Gomes, 2007) the mobile communications industry has shown to be very dynamic and presents innovative strategies such as the prepaid subscription that allowed the mobile phone services to quickly reach mass-market²⁶. As for the players, there are three major mobile providers – TMN²⁷, Vodafone²⁸ and Optimus²⁹; TMN, the incumbent, has been the market leader in market share but Vodafone has been able to generate more results. TMN is also the company with a highest share of female consumers (53,9%), followed by Optimus (50,2%) and then Vodafone (45,5%). Although no explanation is given we could argue that the former company now under the Vodafone label – Telecel – had a very corporate oriented strategy that might have inhibit a more widespread adoption among women. As for age, Vodafone has the biggest market share of clients above the age of 24 as a result of an ongoing strategy from Vodafone to target the youth segment.

In another recent report, *Mobile Portugal* (Cardoso, Gomes, et al., 2007), we can find an extensive quantitative profile of the Portuguese mobile user. In this analysis, gender is used as a descriptive category and approached from the perspective of differences

²⁶ According to ANACOM (<http://www.anacom.pt/render.jsp?contentId=1042267>), the penetration rate in 2006 was 115,7%. At the end of the second trimester of 2010 the penetration rate was 148,7 which is still above the European Union average of 122,9%. Portugal is the third country in terms of penetration rates following Greece and Finland These percentages should take into consideration that around 10% of the users own more that one SIM card; that some cards are for exclusive access to data services and the Internet, that there are cards solely used by machines such as alarm equipments and cars, and finally that there are cards that correspond to companies and not individual users. Moreover the high percentage of prepaid cards does not allow for a full profiling of customers. Currently, and also according to ANACOM, there are 71,9% prepaid cards.

²⁷ <http://www.tmn.pt/portal/site/tmn>

²⁸ <http://www.vodafone.pt/main/particulares>

²⁹ <http://www.optimus.pt/Main>

between men and women. The study reached the following conclusion regarding gender differences: there is a 50/50 split between men and women, but amongst those that do not have a mobile phone there is a majority of women - 57,7% women against only 42,3% men (10). This group of non-users is characterized as being mostly compounded by older people, of the female sex, with low education levels and generally inactive. This seems to present women as less interested in technology but we must not forget that there is a higher percentage of women above the age of 65 (in 2005, 9,9% of the population were women above the age of 65 and 7,1% were men³⁰) and that there are still more women than men without formal education.

Contrary to popular belief about the use of the telephone by women which was extended to mobile phones and that claims that women talk a great deal, in what concerns intensity of mobile phone usage men tend to make more daily phone calls: 30,8% of men makes four or more daily calls, against 20,3% of women (12). No explanation is offered, but only phone calls are accounted for and not other forms of mobile phone use such as text messaging which could be higher for women. Also women tend to be less mobile than men and thus use other communication devices to keep in touch with their networks such as the landline phone or social network sites. Nevertheless, “popular and scholarly mythology play an active part in sustaining and naturalizing our systems of gender differences” (Lana Rakow, 1992: 2) and thus for the basis of companies approaches to the female consumer namely in the development of price plans, services and contents.

When analysing the affordances of mobile phones to men and women the global literature review of similar studies pointed in the direction of men having a more instrumental use of the mobile phone while women tended to use it as a fashion accessory or to maintain their social networks (Castells, et al., 2004a). Both Portuguese men and women use the mobile phone to maintain their social networks although with the slight difference that men call their friends more while women reference family as their main contacts (74,1% of women versus 64% men (19)). Men also tend to make more professional calls (7,5% of men against 2% of women (20)) and to make a more

³⁰ Eurostat: <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/>

diverse use of the available functionalities of the mobile phones; try new ones (30,2% of men against 22,8% of women would be interested in using the mobile phone for banking operations), and being more prone to having 3G phones (54% of men compared to 46% of women). But, on the other hand, men also tend to personalize their mobile phones more (55% compared to 44% of women) and to use a different language when writing text messages (53% of men compared to 47% of women). So the stereotype of emotional uses for women and instrumental uses for men does not seem to apply in its fullest to the Portuguese case. As for the networks one conclusion we can draw is that the mobile phone is mainly used for keeping in touch with family and friends for both women and men and that the gap in family talk is in fact wider than in professional use which pinpoints to the role of women as social networking managers for the family.

Mobile phone can also be a source of reassurance and women tend to use it more to feel safe when alone in a public space and they also feel calmer when they have their mobile phone with them (49% of men against 51% of women totally agree with this statement). Similarly women tend to feel more anxious when they cannot have the mobile phone with them (55% of women compared with 45% of men totally agree with this statement). The reasons are not pinpointed and this theme will be further explored in Part III of this thesis when the gendering of space and time will be discussed in further detail. We will argue that women use the mobile phone to counter balance their fragility situation in public spaces and that their dependency and consequent higher anxiety levels when deprived of their mobile is rooted on their heavy use of the mobile phone as a time management tool and also in their role as primary caregivers for the family.

In conclusion the report seemed to confirm the thesis that Portuguese mobile phone user was not marked by significant gender differences. The report identifies four profiles: the disconnected, the involved, the utilitarian and the home managers but gender was not considered a meaningful indicator in the analysis model. The model was rather based on age, qualifications, working status and marital status. But the lack of gender differences is not scrutinized as is common with similar studies (Fortunati, 2009), nor is there a concern for finding differences between women.

2.1. Differences Between Women in Numbers

We took the challenge of trying to look for differences between women in the same data used in the *Mobile Portugal* report³¹ (consult Annex B). Based on the available data it is not possible to reproduce the life-stage approach in quantitative terms because some of the required characteristics such as whether women had children and their living arrangements were not available, thus we will be looking at differences according to age, income, education level and job status.

2.1.1. Ownership

In the sample of the *Network Society in Portugal 2006* survey, 71,7% of the women had a mobile phone, which is a high percentage of the population. As a reference point, 77,5% of the men also had a mobile phone. How can we characterize the haves and have-nots in the Portuguese female population?

In what concerns age, ownership follows a predictable trend (figure 2) with a high percentage of women owning a mobile phone at a young age up to the age of 55 year old. Ownership only suffers a major drop in women above the age of 65. Although no data is available concerning rates of mobile phone drop-offs, international research and the interviews conducted point in the direction of sustained ownership, meaning that once you acquire a mobile phone you might reduce its use but you do not give up entirely, we can then conclude that as time progresses the gaps in ages will disappear. In the near future age will not be a determinant in mobile phone ownership.

³¹ Gustavo Cardoso, Maria do Carmo Gomes and Rita Espanha (2006), *Survey: Network Society in Portugal 2006*, Lisbon: CIES-ISCTE. Questionnaire-based survey, applied to a representative sample of the Portuguese population aged 8 and above, living in mainland Portugal. Fieldwork conducted by MetrisGfK, during the first semester of 2006.

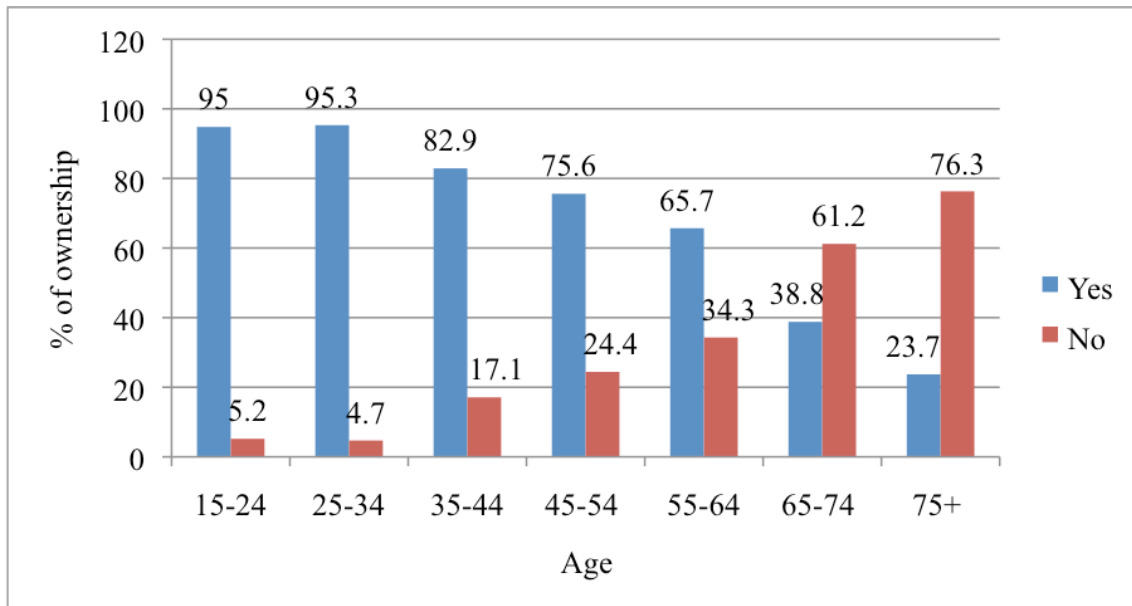


Figure 2. Ownership by age (%).

When analyzing income³² (figure 3) we can see that although ownership increases with income levels, the percentage in the lowest levels is still high, especially if we take into consideration that older women account for a big percentage of lower income women. In fact other studies have pointed out to the fact that women with low income are more reluctant to give up their mobile phone use:

When it comes to gender, we can see that for TV Services, mobile phones and fixed phones those who do not spend any money are more represented in woman. But, if we track only the needy people, we see that the exception occurs for mobile phones, for 56,7% of men and 46,2% of woman do not spend any money (Puga, Cardoso, Espanha, & Mendonça, 2009: 182).

³² As a point of reference the minimum wage in Portugal is currently 475€ (DL N° 5/2010) and it was 385.9€ in 2006 when the data for the survey was collected. Source: DGERT, Ministry of Work and Social Security.

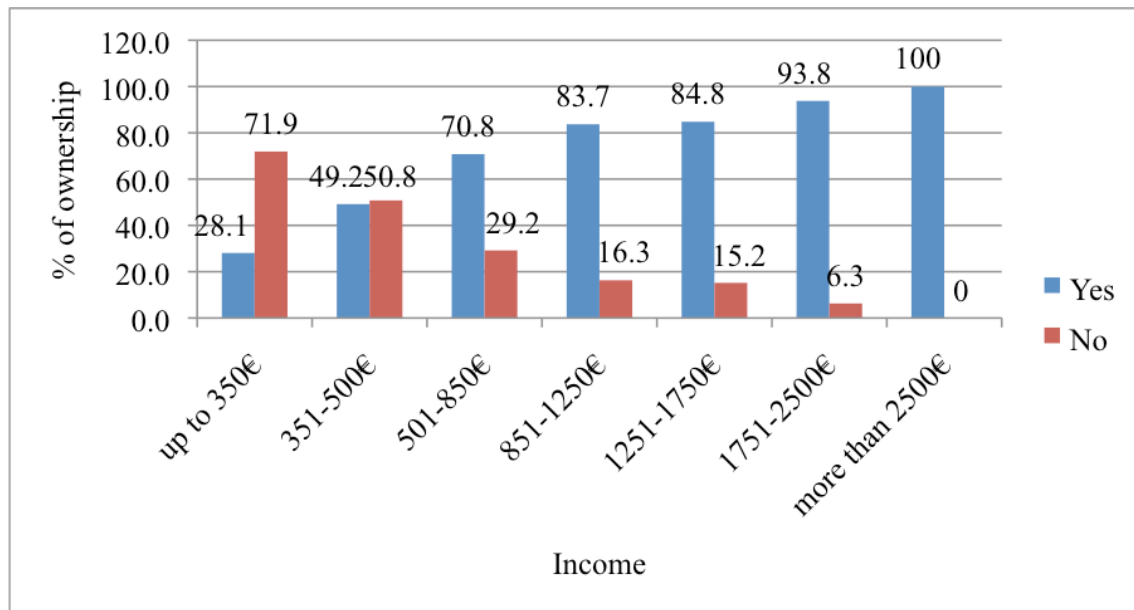


Figure 3. Ownership by income (%).

Although the reason why women with low incomes are more dependent on the mobile phone than on other technologies is not put forward in the available studies, we could argue that the rationale for adoption in developing countries would also apply in this case, that being that women appreciate the benefits of a technology that provides them with freedom of communication and that they can completely control by themselves. Owning a mobile phone could mean easier access to employment opportunities and a safety tool.

In terms of job status (figure 4) ownership is concentrated on students and active women. As the interviews will later tell us there is a strong job effect in ownership with many women having access to mobile phones through their jobs, especially the more sophisticated models that are introduced through company plans. Entering school is also a determinant in owning a mobile phone with many women reporting in the interviews that they got their first phone when entering college for safety reasons and how now they are thinking or have already given their children mobile phones because they had gone to a different school or have entered secondary education.

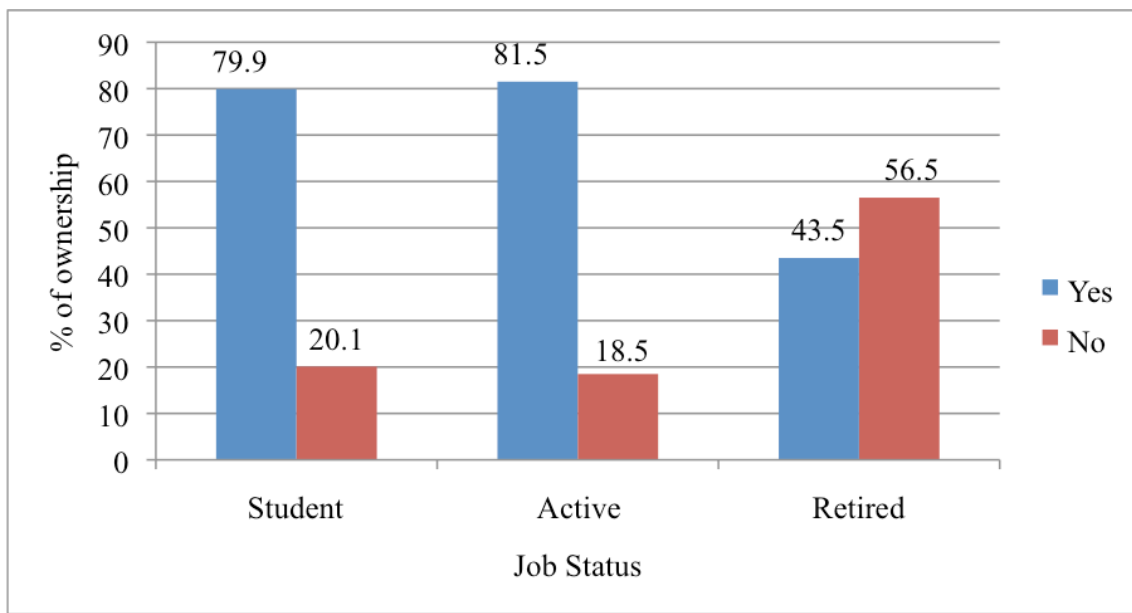


Figure 4. Ownership by work status (%).

When looking at the education level (figure 5) the highest percentages are in women with secondary and university level education but they are also high in women up to the 9th grade. They are only very low in women with no formal education. Once again we have to note that women with no formal education, as a consequence of historical constraints on women's education, tend to be older³³.

³³ Of the women with no formal education 36.8% were between the ages of 65 and 74 and 35.3% were above 75 year old.

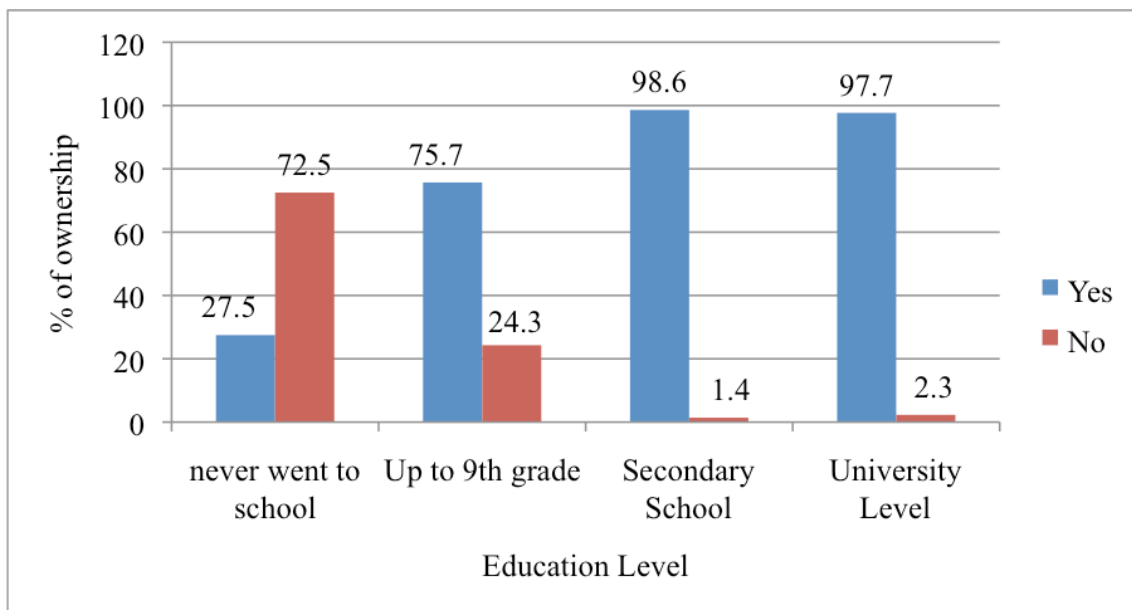


Figure 5. Ownership by education level (%).

As for the number of devices, 90,4% of women owned a single device. This percentage is fairly stable across education, age and job status with only slight differences in the younger women and the active women. The only major difference is accounted for income where women earning more that 2500€ had a 50/50 split between one or two devices.

As for price plans no significant differences were found between women. The vast majority has a pre-paid card, as in also the case for the Portuguese population as a whole. The percentage is particularly high for students, women up to the 9th grade and low-income women; these women would tend to favour control over expenses and pre-paid cards provide that control.

2.1.2. Networks. Whom do Women speak with?

Women as a whole use the mobile phone mainly to talk to family members (figure 6). Women seem to function as the switchboard operators for family members, coordinating daily activities and keeping track of whereabouts. This becomes especially

true when compared to men that don't speak to family members as much as women even though they do speak to family more than friends.

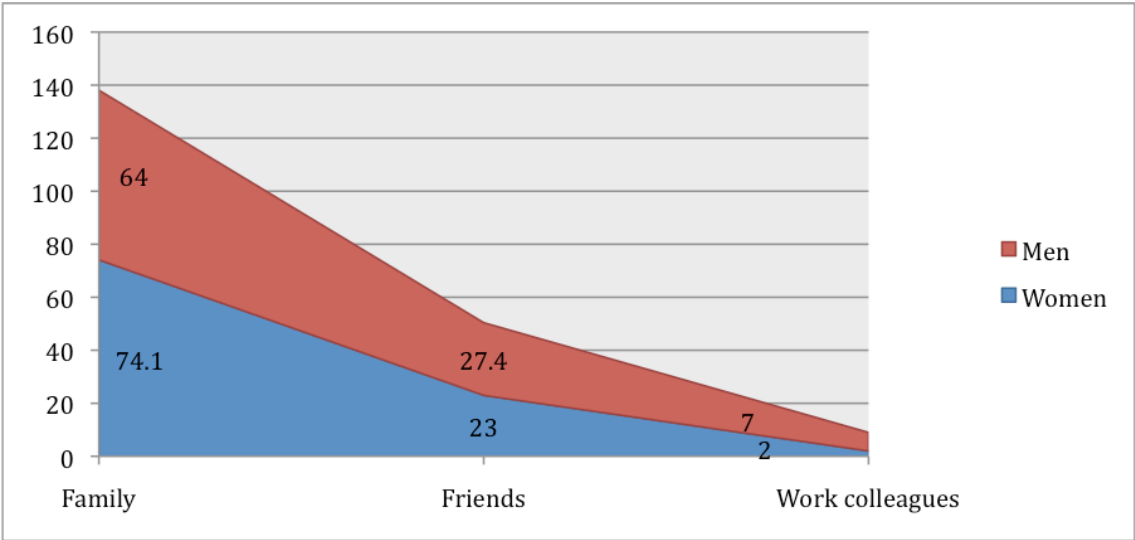


Figure 6. Type of contact by sex (%).

Age (figure 7) and job status (figure 8) are the characteristics that most distinguish women in whom they speak with. Younger women and students speak more with friends than family members which is expected in a life stage where young girls are looking for autonomy.

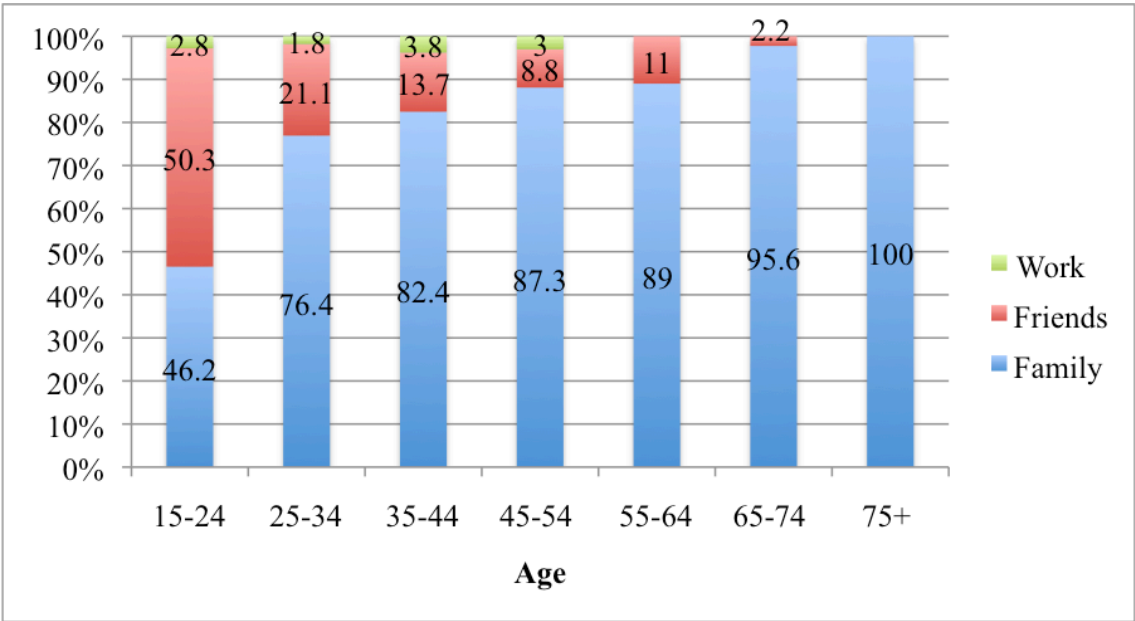


Figure 7. Type of contact by age (%).



Figure 8. Type of contact by job status (%).

There are no significant differences in what concerns income (figure 9) but some slight differences in terms of education level (figure 10) with contacts through the mobile phone being more diversified in more educated women.

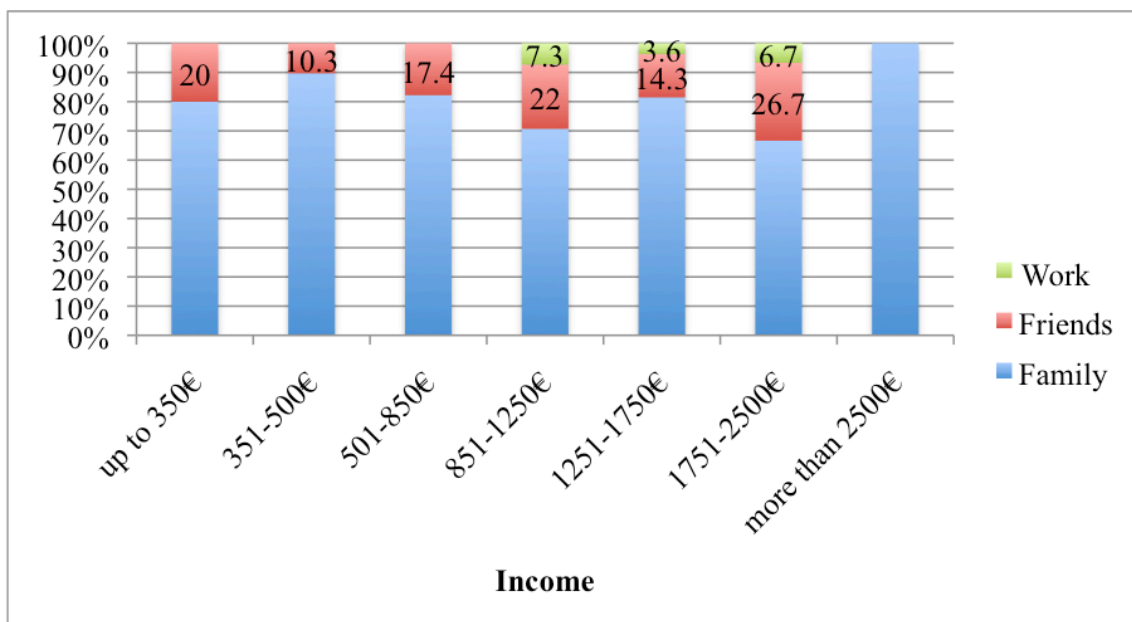


Figure 9. Type of contact by income (%).

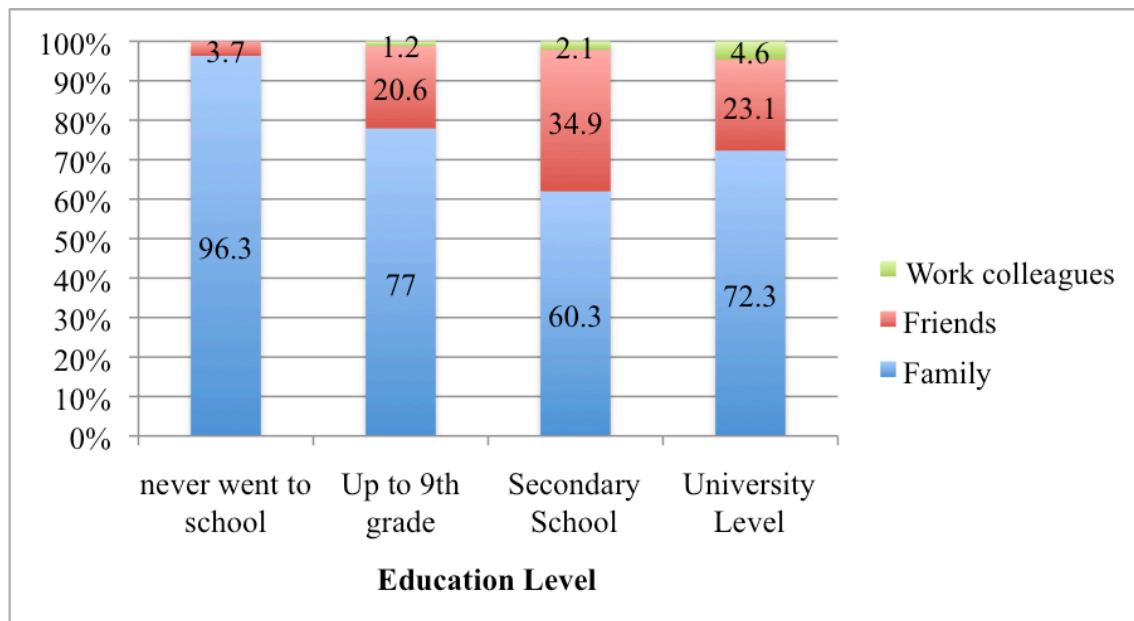


Figure 10. Type of contact by education level (%).

2.1.3. Uses and Proficiency

Voice and text messaging are the most common uses of the mobile phone by women (figure 11) with 45% of women speaking on the phone frequently and 26% sending text messages. Sending or receiving MMS is still not very popular mainly because of cost, only 2.7% of women use it frequently. Although a very important activity, voice no longer takes the lion share of mobile phone uses when we consider women as a whole. Following voice and text, the most popular uses, come functional uses such as alarm clock, agenda and calculator. These are important uses as they build intimacy with the device. After functionality come some entertainment uses and the most popular one is playing games with 6.1% of women stating that they play games frequently, followed by listening to music or radio. Way down the list come internet related uses such as sending or reading e-mails, surfing the Internet or using instant messaging services. As in MMS cost plays a role in the use of web services to which a lack of competencies is

added. We also have to take into account that to use web services its necessary to have access to a 3rd generation device³⁴.

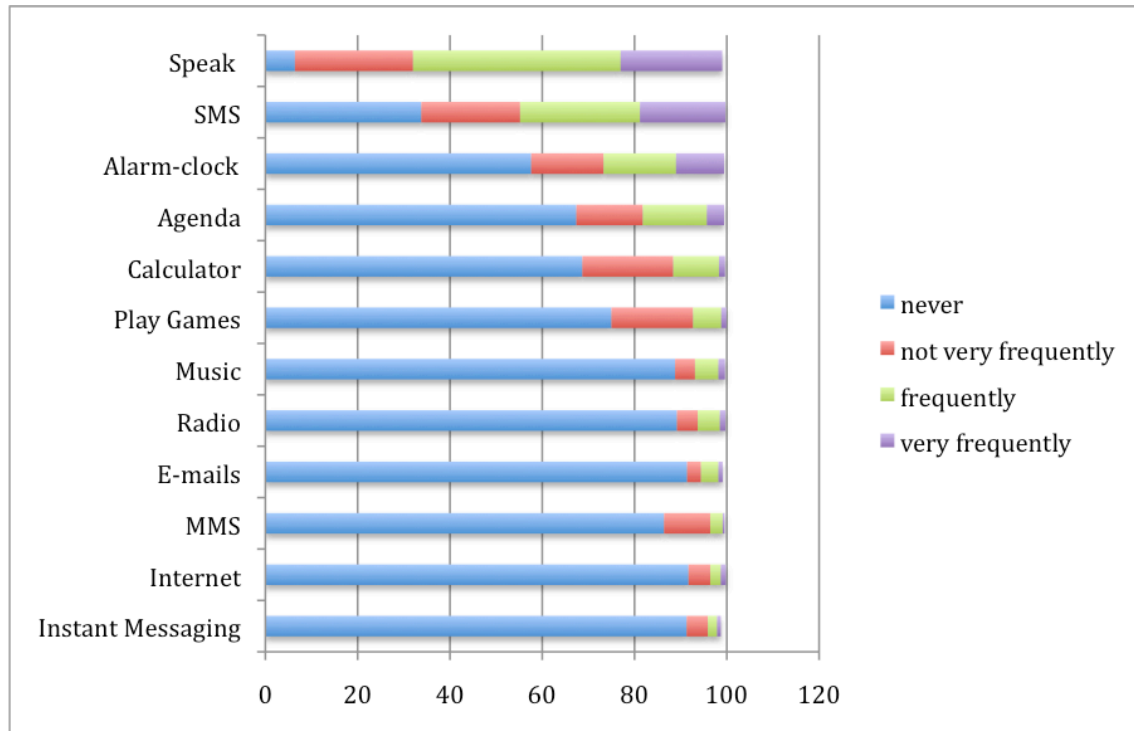


Figure 11. Most frequent mobile phone uses by Portuguese women (%).

According to job status (figure 12) students divide their uses between voice and SMS and they are the ones that even use SMS more frequently than voice. As we move to the active women voice becomes more popular than text messages and dominant when we speak of retired women. MMS is marginal in all job status and is only referred as used frequently in students and active women. MMS do require a higher degree of proficiency in the use of the device which is not as common in retired women.

³⁴ According to ANACOM in the 2nd quarter of 2010, the penetration rate for wide band (UMTS/HSPA) was 58.6% of active devices. From those 27,6% did in fact use Web services. And from those that used Web services 32% accessed the Internet through modem plates. Although numbers for 3G access are still small they represent a huge growth: 77.% in penetration rate and 101.1% in active use.

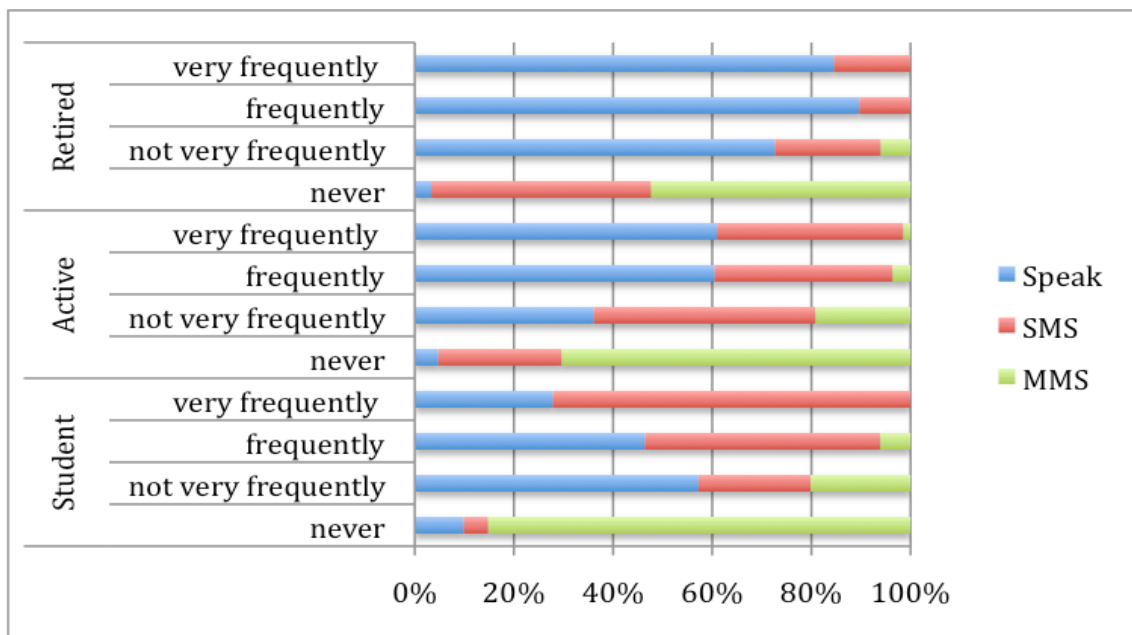


Figure 12. Most popular uses by job status (%).

When we look at women's uses of the mobile phone from an education level (figure 13) perspective uses are least diversified among women that never went to school and those with an education up to 9th grade. SMS becomes more frequent in women with secondary or a university education because many women below 9th grade might feel self-conscious of writing a text and those with no formal education would simply not have the skills. MMS follows the same trend although in much lower numbers in terms of use.

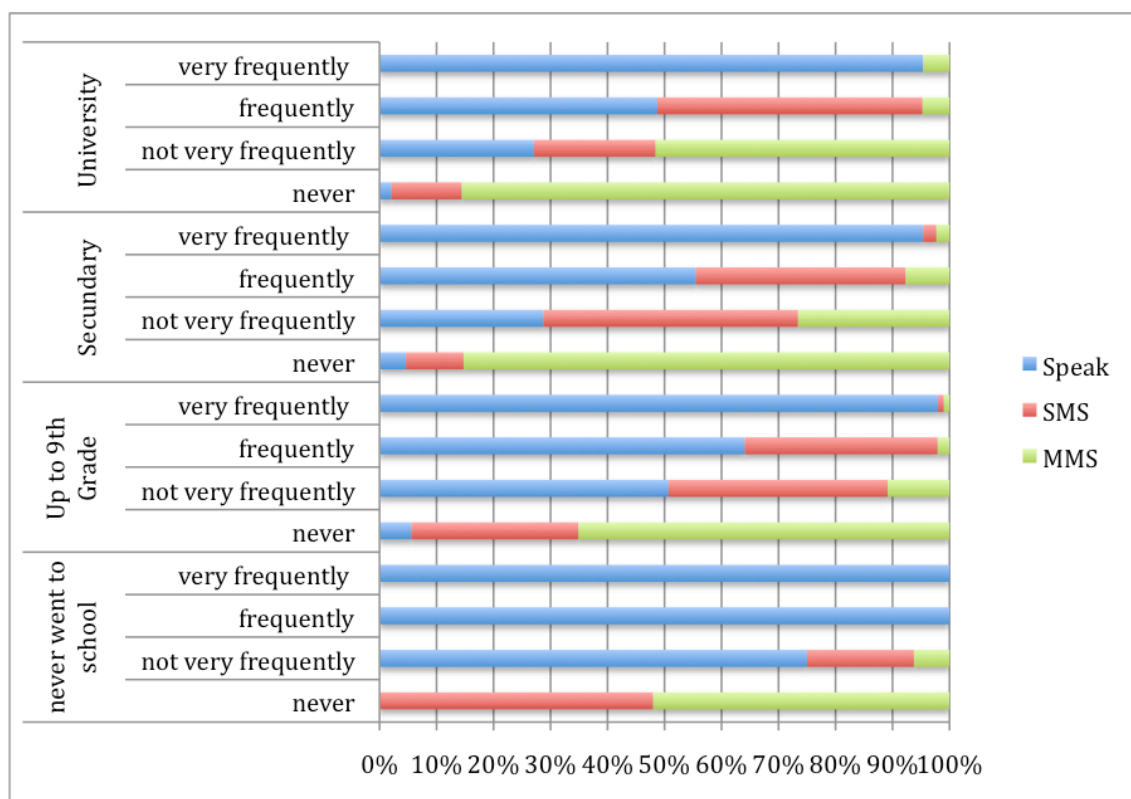


Figure 13. Most popular uses by education level (%).

In what concerns age differences (figure 14) the pattern is similar to that of job status, as we progress in age uses become less diversified due to the demands in skills required of each use. Thus voice is completely overwhelming in women above the age of 75 and MMS only is referred as frequent up to the age of 64. MMS is most frequent in women between 25 and 34 (5.6%). We must note that in Portugal the average age for the first child is 28.1 which means that this segment is the prime fertility bracket for Portuguese women and in the interviews women that were mothers, especially those that had their first child mentioned the increase use of MMS to send pictures to the fathers, grandparents and close relatives and friends like the picture of the first smile, the first tooth, etc.

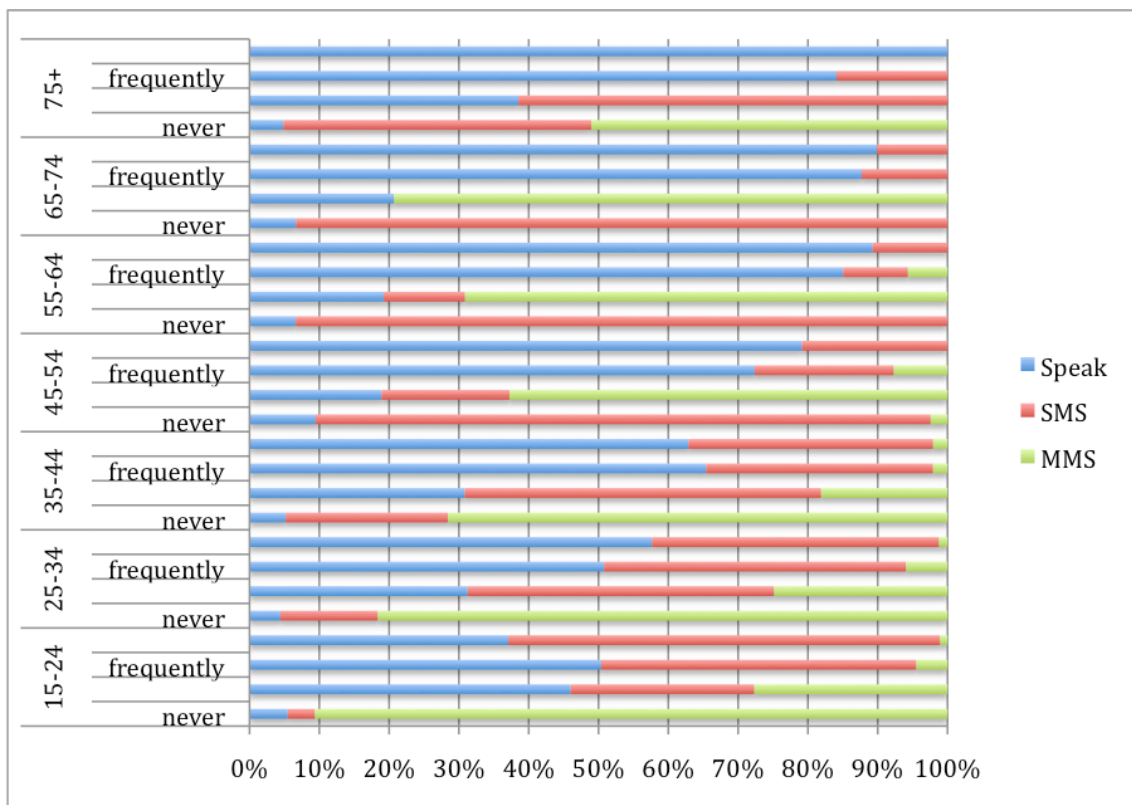


Figure 14. Most popular uses by age (%).

Finally income differences (figure 15) do seem to account for the use of voice, which increases in frequency as the income also increases. But the explanation that SMS is more popular because of its reduced cost does not seem to hold when the highest percentage frequency in use is reached in women with an income of more than 2500€. Clearly benefits of text message must lie elsewhere. As for MMS there is no consistent influence of income in frequency of use.

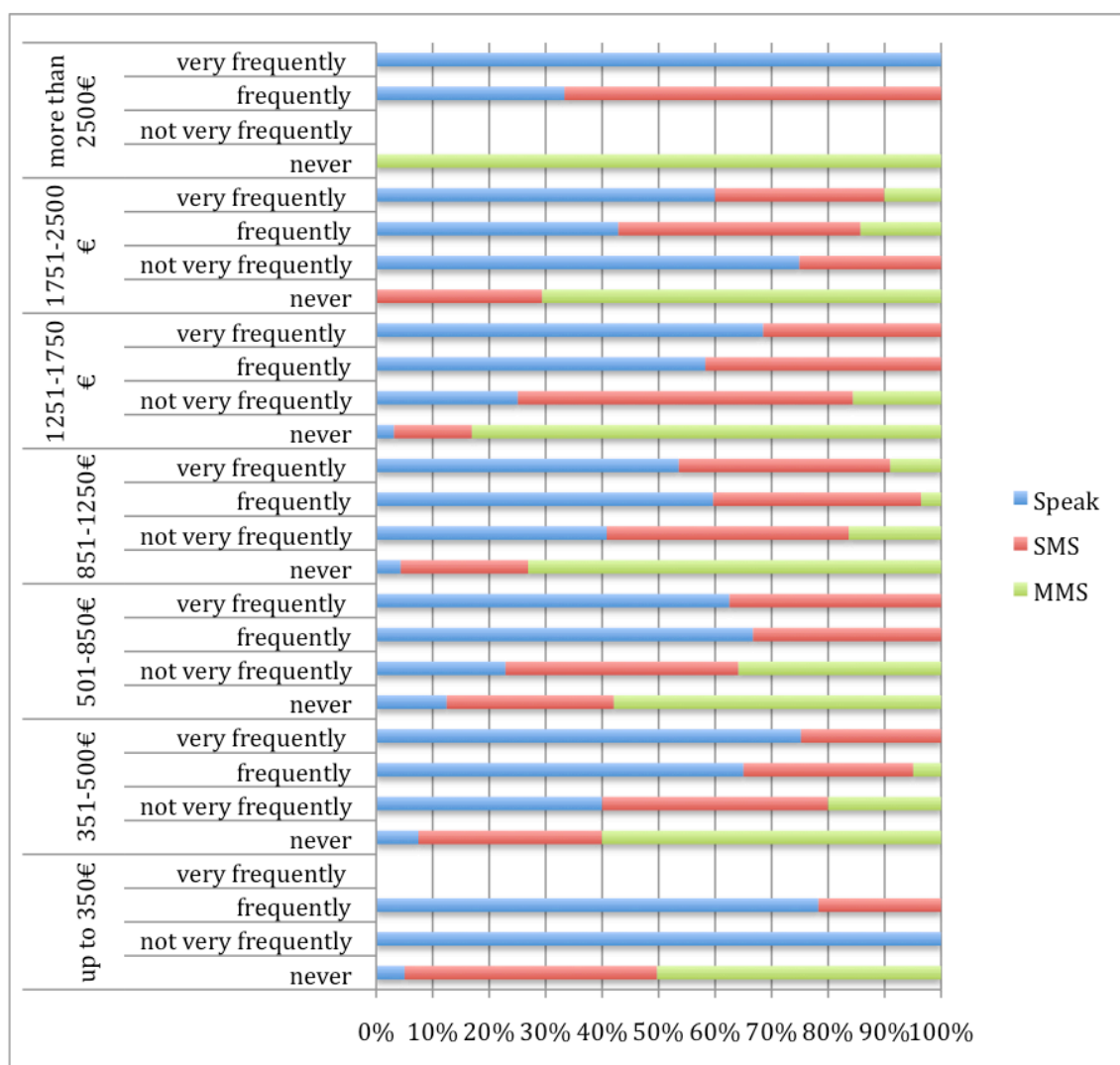


Figure 14. Most popular uses by income (%).

Entertainment activities are marginal when compared with the most popular activities of communication either through voice and SMS. For Portuguese women the designation “mobile phone” still corresponds to their practices as in fact the mobile phone is a telephone that they can carry in their bags and that enable them to keep in touch wherever and whenever they want. From the entertainment activities, playing games in the mobile phone the most popular for women but the differences found are common to the other entertainment activities under inquiry – listening to radio and music. Entertainment uses of the mobile phone are more popular for young women with secondary or superior education and students; and they are less popular for retired women without formal education and above 45 year old.

The same pattern can be found when we take into consideration web related activities such as e-mails, surfing the web and instant messaging. These are also more popular for

young women, although a slight older than in entertainment activities (as an example instant messaging is most popular in women aged 35-44) with secondary or superior education, that are students. Web related activities are less popular in women above 45 years, up to secondary education and retired. Income seems to play no part in the popularity of entertainment or web related uses because most of those activities are less popular both in low-income and high-income women.

Contrary to the idea of lack of technical skills, women seem very proficient and autonomous in their use of the mobile phone with 78.7% of women³⁵ stating that they usually do not ask other people to make operations related with the mobile phone use for them (figure 16).

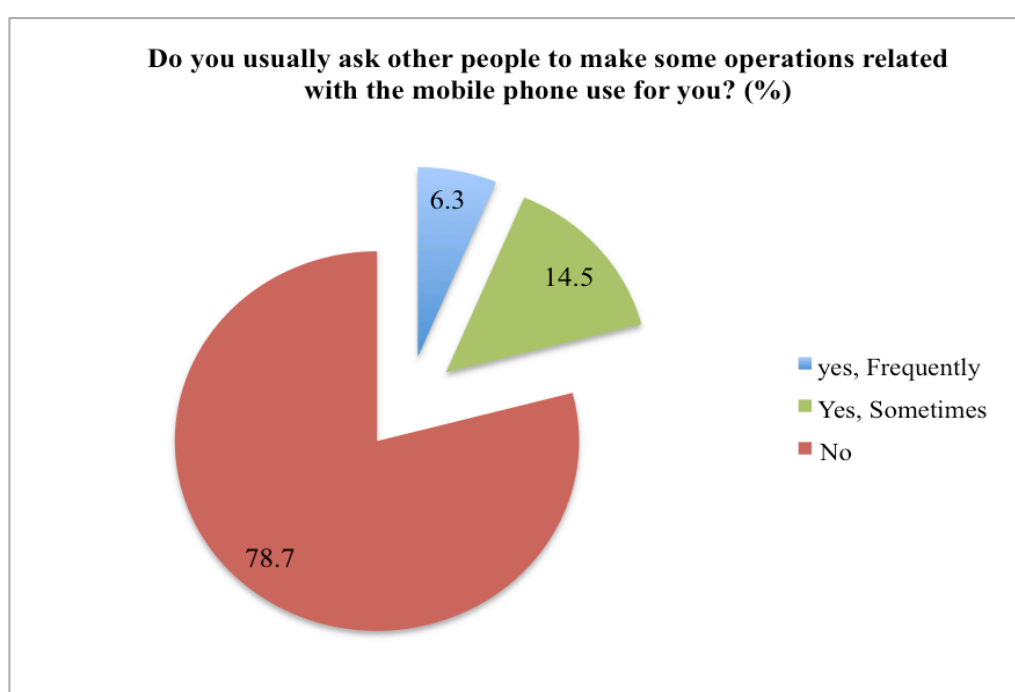


Figure 16. Women's proficiency in mobile phone use.

The main operations for which women require help from others are the recharge of their prepaid cards and technical problems with the device (figure 17).

³⁵ The percentage for men is only slightly higher with 88.1% of men stating that they usually do not ask other people to make operations related with the mobile phone use for them.

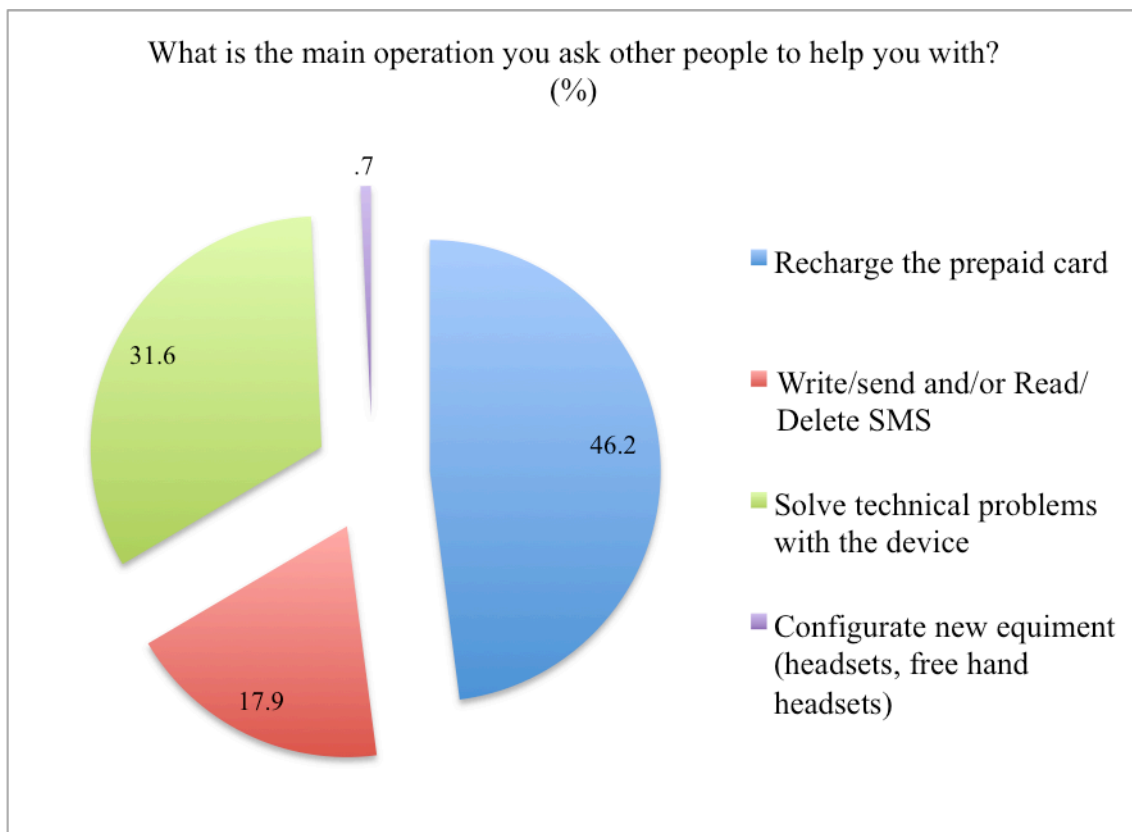


Figure 17. Operations for which women require help from others.

When we take age into consideration age, mobile phone proficiency is higher and lower for older women (figure 18). Proficiency is also higher in women that are students and have a university degree. Nevertheless this information could not disclose the whole phenomenon because the need to resort to help from other people would also depend on the type of equipment: women with access to more sophisticated devices might need more help than women with basic devices, so we can have a woman with a university degree that resorts to help to solve technical problems because in fact they are complex while other women with lower qualification do not resort to help because the devices they own are quite basic. In the interviews women stated that they felt quite comfortable in the use of their mobile phone and, contrary to other technologies like the computer or even home electronics like the television or the cable box, they enjoyed the mobile phone for providing them an autonomous use. But for women in high rank jobs with access to high-end devices that demanded integration with professional tools usually resorted to company services to configure their mobile phones which does not mean that they have a low proficiency level in mobile phone use.

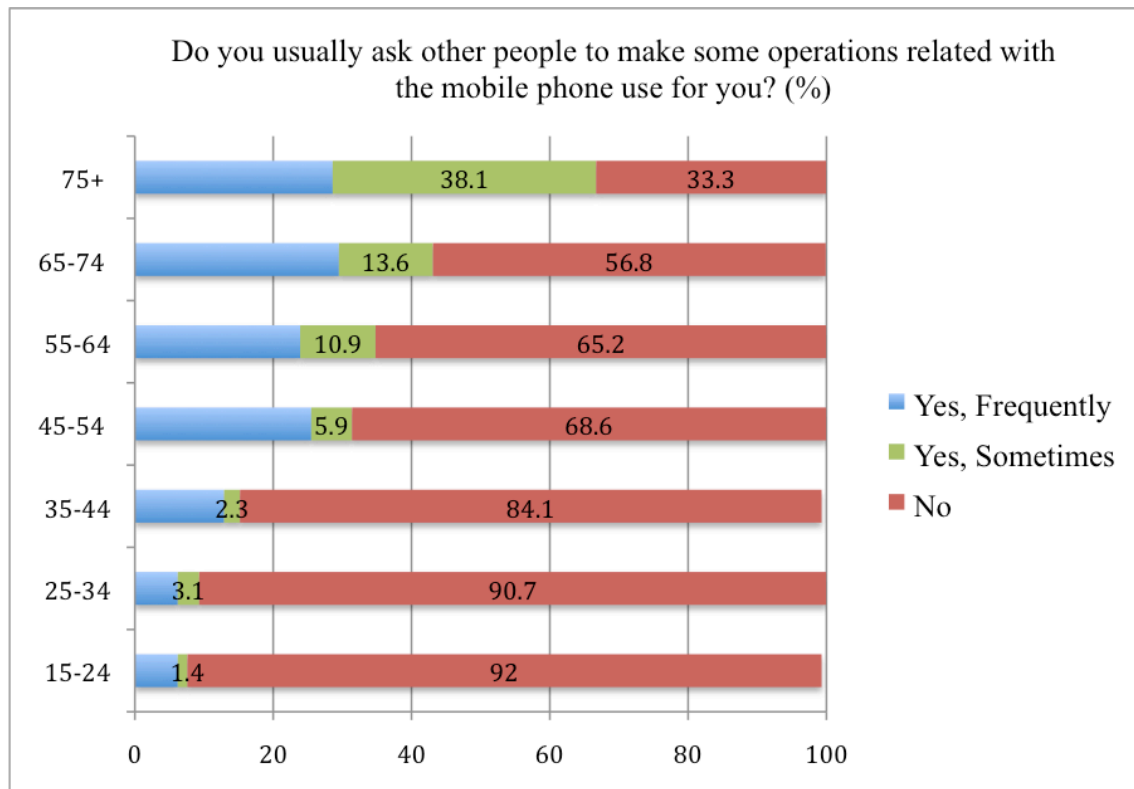


Figure 18. Women's proficiency in mobile phone use according to age

As for the interest in future and more sophisticated uses such as using the mobile as an ATM, GPS or to watch TV. Women do not show much enthusiasm for using new features in the near future, nevertheless on the top3 of the most interesting features are using the mobile phone as an ATM, as an MP3 reader, and as a GPS device (figure 19³⁶). Watching TV which is a pervasive activity for Portuguese women does not even make it into the top3 interests in a near future. The least interesting future uses for women are to bet on the stock market, being able to participate in chats and discussion groups, and watching movies and other multimedia elements.

³⁶ All these services are available in the Portuguese market and thus are a real option for Portuguese women. The use of the mobile phone as a GPS (Global Positioning Service) has been particularly promoted recently due to the increase of the penetration rate of more sophisticated devices with larger screens that allow for a better user interface. The least developed in the mobile platform is the "Via Verde" service. The "Via Verde" is a system of automatic payment for tolls that has been extended to the use in car park payment and some petrol stations. The system is fully integrated with a banking account and extending it to the mobile platform would allow, on one hand to dismiss the use of a vehicle identification unit which is currently required, and on the other hand to extend it to other venues or activities which do not involve a vehicle. An explanation of the use of the mobile phone as an ATM can be found here: <http://www.sibs.pt/en/mb/prodserv/mbphone/>, the service is available in all mobile phone carriers and for all mobile phone platforms. An example of mobile TV services can be found here: <http://www.meo.pt/conhecer/tv/mobile/Pages/oquee.aspx>, the meo mobile service allows TV watching on the mobile phone but also using the mobile to record TV programs and watching them at home.

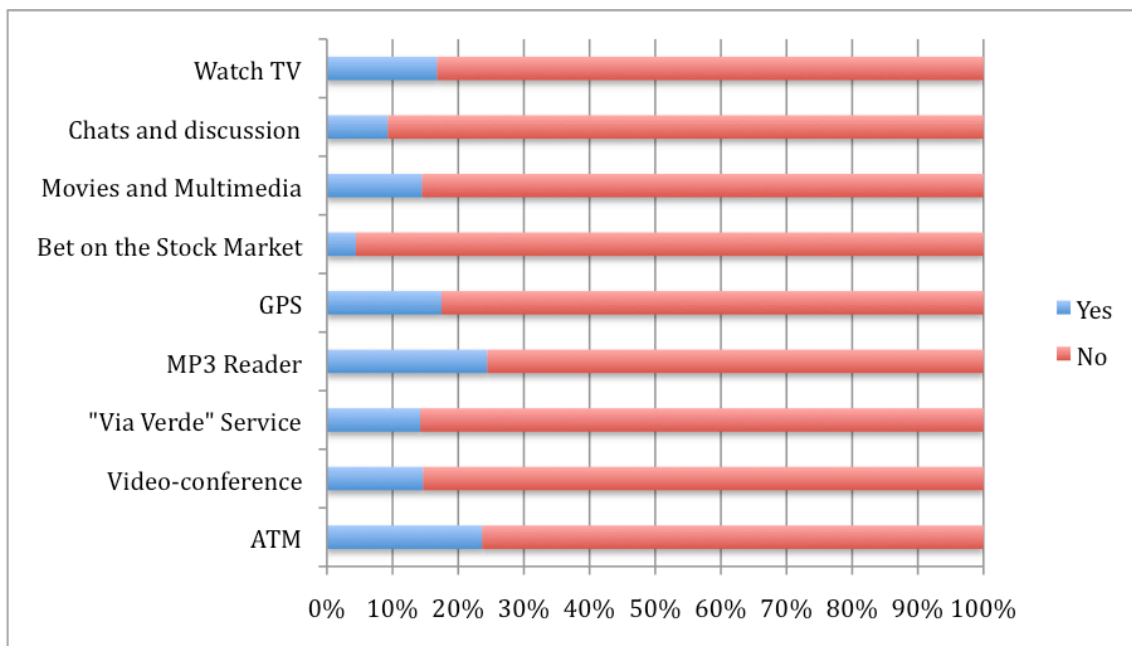


Figure 19. Women's proficiency in mobile phone use according to age.

The use of the mobile phone as an ATM, which might be connected to time saving, is particularly interesting for active women, with a secondary or superior education, that are aged between 25 and 34 year old and have a high income. Both the use of the mobile phone as an MP3 reader, which is more connected to an entertainment use, and as a GPS, are more interesting to young women, students, with high-income, and women with a secondary or university education.

2.1.4. Affordances

Mobile phones provide a multiplicity of affordances that range from control over time and space to emotional reassurance and privacy. In the survey, 82.8% of the women agreed that they felt calmer when they had their mobile phone with them and 53.3% agreed that the mobile phone was only useful if it was always turned on. But the mobile phone is also a source of paradoxes with 62.6% of women stating that there were more ways for other to control them when they had their mobile phones on and with 71.9% of women frequently feeling the need to turn off their mobile phone so that calls they

received did not interfere with their personal relationships. This translates the constant demand on women's time as only 44.7% of the men felt the same need to turn off their mobile phones. The mobile phone is essentially a tool for women to manage their private and family life with 82.8% of women agreeing that the mobile phone allowed them to manage their personal and family life in a more effective way.

Mobile phones are also a tool for controlling time and space: 82.7% of women's stated that mobile phone are essential instruments for business making and for solving professional problems, anytime, anyplace; and 83.4% agreed that since they had a mobile phone they did not have to travel so far to solve their problems.

Mobile phones are thus essential tools in women's lives but contrary to popular beliefs that equate women's relationship with technology as one centered on fashion, only 11% of women agreed that the mobile phone allowed them to identify someone's status. That percentage is much higher for men – 31%.

2.1.5. Camera Phones

Women own less sophisticated mobile phones than men so there was a slight difference in the percentage of women that own a mobile camera phone, 42,5%. Still this is one of the most important add-on features for women. Younger women (figure 20) more commonly own mobile camera phones because they have more sophisticated devices.

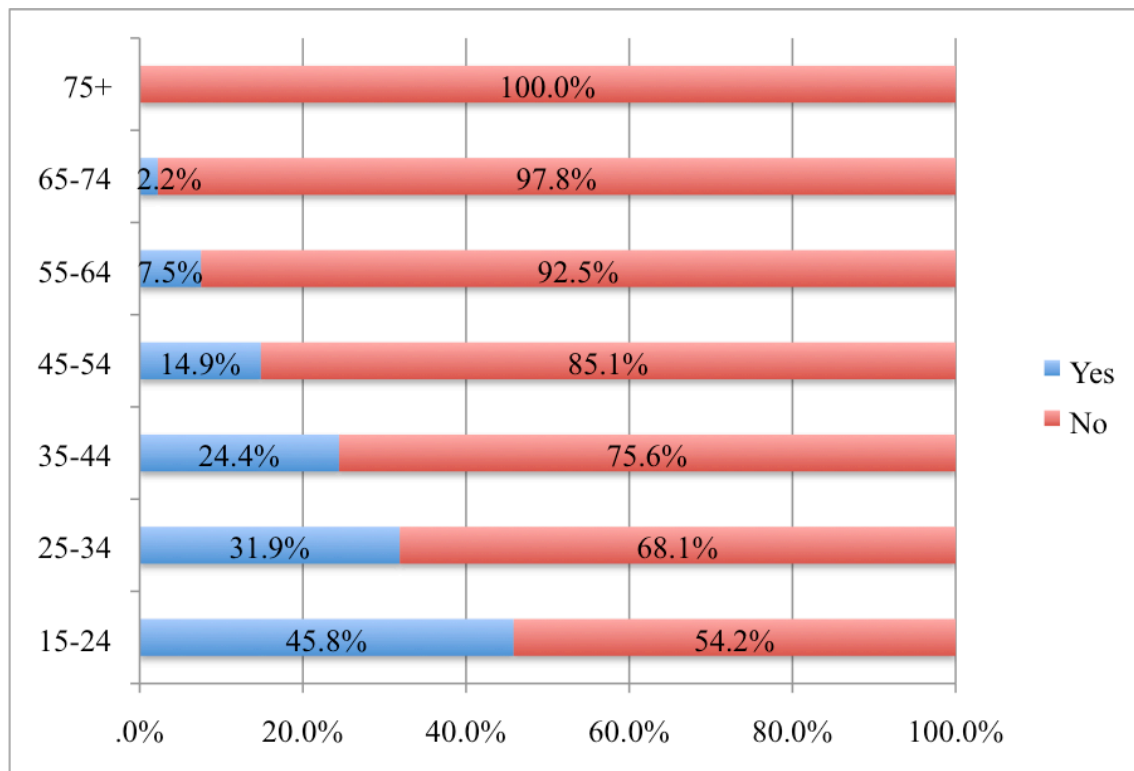


Figure 20. Mobile camera phone ownership according to age.

Women with higher incomes also own more camera phones (figure 21) as well as women with higher education levels (figure 22) and women students (figure 23). Mobile camera phones are mainly used to show that a person has been present in a certain situation or happening or to keep a souvenir. Keeping memories is actually the only situation where women use the mobile camera phone more than men. These uses are more common in young, active women, up to the 9th grade. For retired women the most common use is in fact showing objects or people to friends, family members and known persons. Retired women have less access to social networks where other age brackets and women with higher education levels are able to share their pictures so for retired women the mobile phone can function as a mobile album. Also it is probable that retired women might have lower access to other picture capturing devices like digital cameras. Thus the mobile phone replaces digital cameras in their daily lives. These women still associated keeping memories or showing presence in certain situations with a more formal picture taking activity, and this might even be performed for them by other family members.

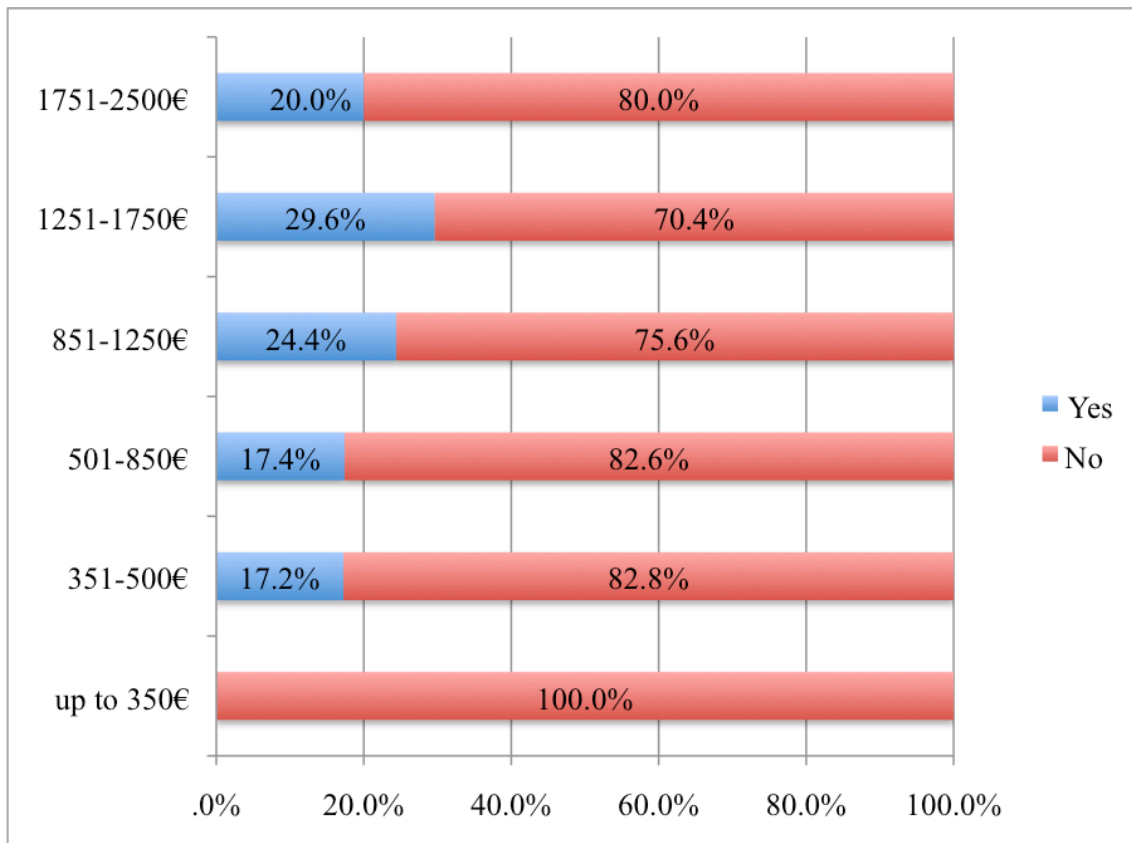


Figure 21. Mobile camera phone ownership according to income.

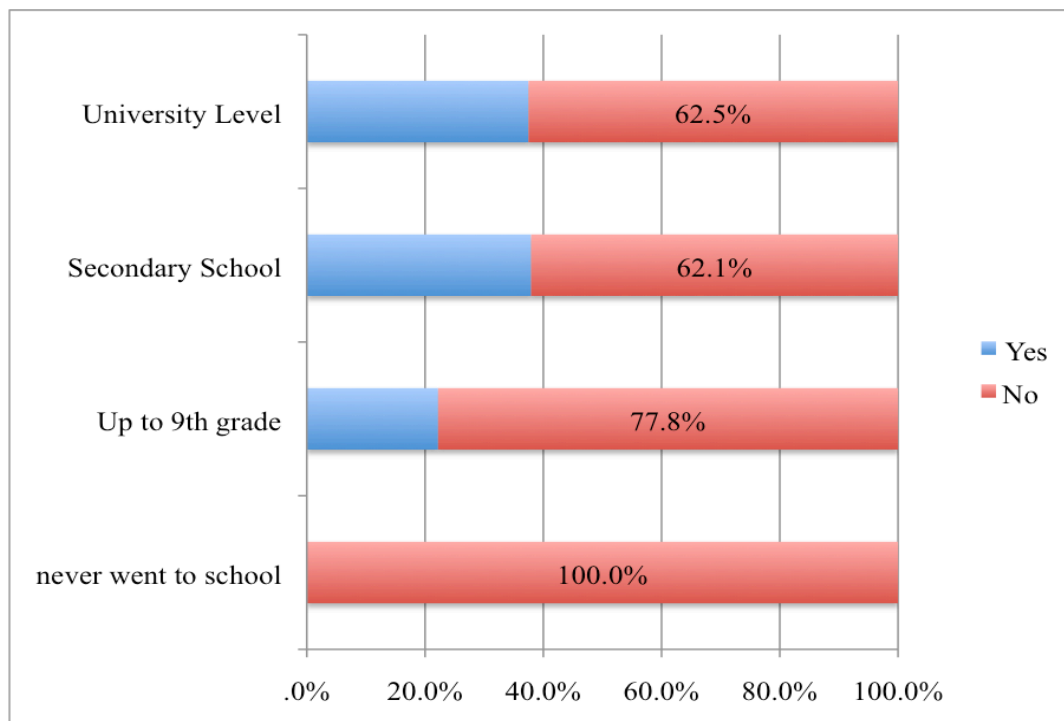


Figure 22. Mobile camera phone ownership according to education level.

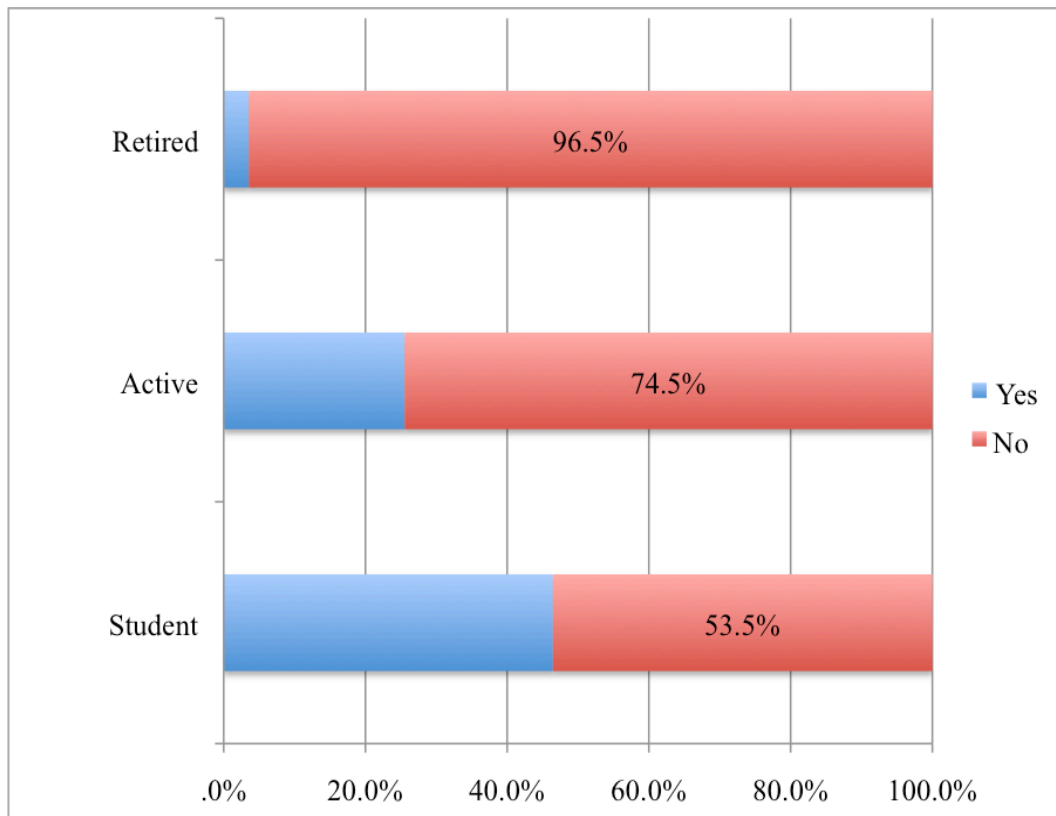


Figure 23. Mobile camera phone ownership according to job status.

2.1.6. Personalization

Similarly to the use of the mobile phone as a status symbol women still fall behind men on the personalization of their mobile phones, with 44,1% of women stating that they had personalized their mobile phone with a screen saver or a favorite ring tone. One of the reasons for this lack of personalization may in fact be the lack of technical skills as 57,4% of women said that they did not know they could do it and how to do it. Personalization is more common in younger women (figure 24), high-income (between 1251 and 1750€) with a secondary or university education and women that are students. Personalization through content is also associated with the sophistication of the device. In women with low-end devices personalization is performed through non-content related practices such as the use of a case, a sticker or a charm.

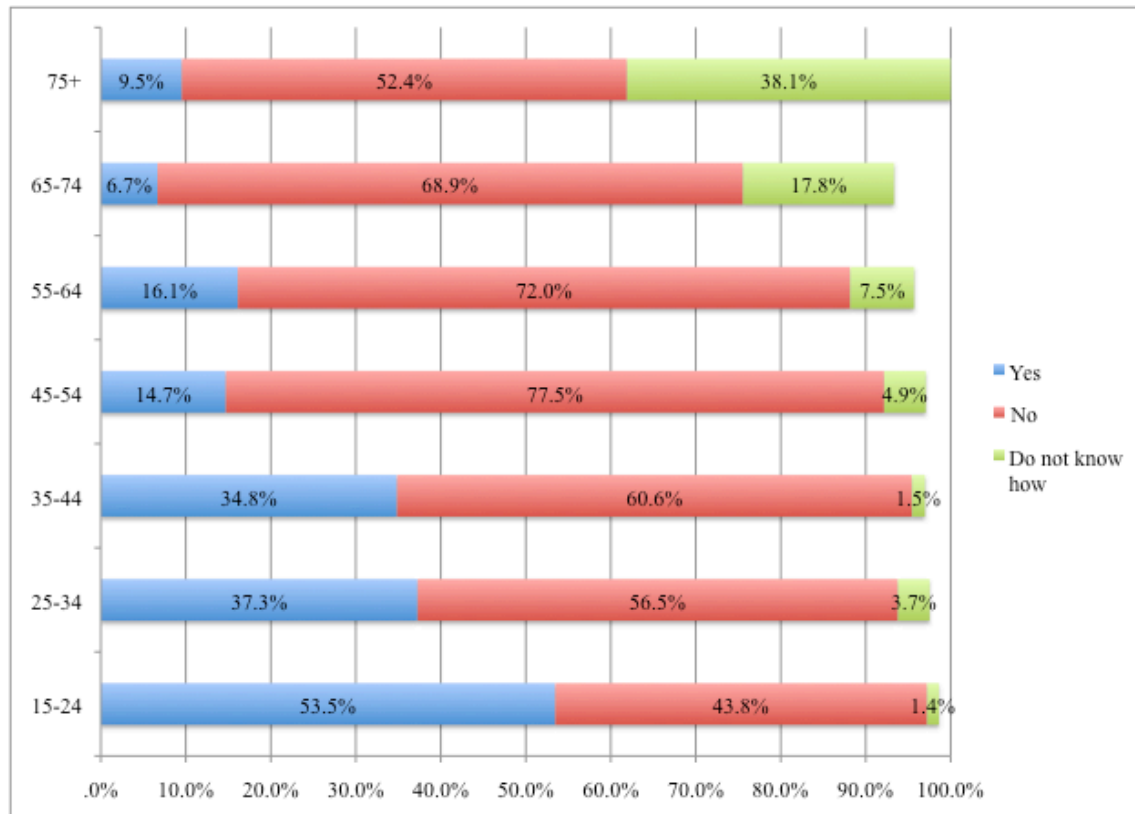


Figure 24. Mobile phone personalization according to age.

2.2. Women's voices

The stories of women that we present here illustrate the multiplicity of facets of their emerging relationship with mobile phones and how their life stories intersect with different specific uses of technology and the mobile phone. The stories are the result of the interviews conducted to 37 women at different life stages (consult Annex C and D for a complete list of the women interviewed and the questionnaire script used for the interviews). This chapter gives voice to their subjective experience of the mobile phone as a gendered technology, as a tool for “gender work” and “gendered work” (Lana Rakow, 1992). For each life stage we have chosen the stories of several individual women so that we can provide a deeper understanding of these women's lives as a whole. We will further incorporate other voices in the in depth analysis of Part III because these interviews that were chosen because they represented the diversity of views and experiences do not exhaust the complexity of contributions from all the interviews. We aim to provide an insight on how the mobile phone must be understood within a specific context and how social gendered practices are subtle.

Raquel represents the voices of young women that still depend on their families for housing and financially. Raquel is, like other young women in her life stage, searching for her autonomy and independence and the technology is instrumental in that purpose. Inês finds in the mobile phone an important tool to balance her personal and her new professional life. Catarina and Patrícia D. are two examples of the diversity in the profiles of nesting women, one has recently entered a traditional marriage arrangement after a long dating relationship and the other juggles time and space to accommodate a relationship with a divorced partner, father of a young boy. For them the mobile phone is an umbilical cord to friends and family that are now growing distant from their daily lives. Ana D., Carla D. and Sara also represent the multiplicity of roles performed by mothers and how the mobile phone becomes an electronic leash and how technology options and leisure takes second stage in a time starving routine. Cecilia stands for the women that are or have become sole caregivers through divorce or because they have become widows. These women derive emotional support and reassurance from the possibility to always be in touch and to remotely perform their motherhood. These

women are also entrenched between the needs of their children and their increasingly aging parents and thus the mobile phone provides them the opportunity to perform their gendered emotional labour in a more effective way. Carla P. and Ana are examples of the challenges mature independent women face when they find themselves back or still in the game for a romantic relationship. Living alone these women use the mobile phone as a social networking tool and in that sense approach it in much the same manner than young dependent or teenagers. It is also a safety tool providing them freedom of movements even when alone. Finally Deolinda and Maria show how empty nests are not so empty after all. Even after retirement as is the case of Maria, many women find themselves having to take care of their grand-children or return to work to provide extra money for their families. Deolinda and Maria also represent opposite poles in terms of media ecology which has provided very useful insights to how different media ecologies are determinant in the uses of the mobile phone.

In much the same way as Lana Rakow in her study of the telephone we are “looking for how gender is both accomplished and thought about” and like the telephone, the use of the mobile phone is interpreted not as “a reflection of differences but an instance of them” (Lana Rakow, 1992: 10).

2.2.1. Young Dependent. Raquel, autonomy and connectedness

Young dependent women are marked by their recent coming of age and that has happened in an already very mobile context. In generational terms these women are part of the “millennials”³⁷ and although addressing a generation as a whole is a

³⁷ According to the Pew Research Center (<http://pewresearch.org/pubs/1437/millennials-profile>), the millennials got their name because they have come of age in the new millennium and so the label applies to all those born between 1981 and 2000. Among the first to use this term were William Strauss and Neil Howe, whose 1991 book, “Generations: The History of America's Future, 1584 to 2069”, was widely recognized for its contribution to the analysis of cohort differences in U.S. history and their potential impact on the future. In *Millennials Rising: The Next Great Generation*, published in 2000, Strauss and Howe focused on those born in or after 1982. Although based in the American society this label can easily apply to other cultural contexts, namely the Portuguese, as its time frame occurs in the consolidation of the globalization process, when digital networks enable people across continents to share the same cultural references. We can easily argue that a Portuguese millennial feels much closer to an American one than former generations did. Millennials are also called Generation Y, Generation Next or Net Generation.

simplification process that hides the many differences within that generation it is also true that “Period events and trends often leave a particularly deep impression on young adults because they are still developing their core values; these imprints stay with them as they move through their life cycle” (P. Taylor & Keeter, 2009: preface). Millennials are described as self-expressive, open to change and connected:

Steeped in digital technology and social media, they treat their multi-tasking hand-held gadgets almost like a body part – for better and worse. More than eight-in-ten say they sleep with a cell phone glowing by the bed, poised to disgorge texts, phone calls, emails, songs, news, videos, games and wake-up jingles (P. Taylor & Keeter, 2009: 1).

Millennials are also the first generation for which technology is an important feature of their identity: “it is not just their gadgets – it is the way they’ve fused their social lives into them” (P. Taylor & Keeter, 2009: 16). This characteristic of heavy technology use and adoption came out in the quantitative analysis of the previous chapter, where younger women (15-24 years old) demonstrated a closer relationship to the mobile phone: “millennials are more likely to treat their cell phones as a necessary and important appendage. Many even bring their cell phones to bed” (P. Taylor & Keeter, 2009: 32).

Young dependent women are amongst the younger millennials and at the stage where differences between men and women are less prominent. They still have not faced the challenges of entering the workforce and motherhood, which constitute hurdles in women’s lives. For the women interviewed the mobile phone was essentially a tool for social networking and autonomy. The device they choose is still a personal choice based only on self-expression. They live in a highly complex media environment characterized by a high Internet usage, in which the mobile phone is only a piece of the puzzle but probably the most pervasive one. For them the convergence of mobile and Internet is only hampered by money constraints.

Raquel, a twenty year-old Economy student, is one face of that always-connected culture. She has a dream of attending college in Cambridge where her cousins are already studying. She also has a dream of working for a big international company abroad, “*in New York, like the movies, where we see those meetings in panoramic rooms with a view to Central Park*”. But she is struggling to finish high school and so

she is attending night classes. She is completely dependent on her computer and mobile phone: *“If I were awake for 24 hours I would use them for about 18 hours and I only not use the mobile phone while I am asleep”*. She feels the need to always be connected and mostly uses technology that satisfies that need and that allows her autonomy from other family members that control other activities like television viewing: *“I only see TV when I have nothing else to do on the computer. The TV is always on and my grandmother is always watching soap operas. Sometimes I keep her company but I don’t care much about TV shows”*.

Raquel is a single girl that is not currently in a relationship. She wants to pursue a career in tourism management outside the country. She has already had some job experience as a table waiter but she dreams to accomplish more with her life. She has an unconventional living arrangement because she has always lived with her aunt and her son and her grandmother. She grew up in an extended family and treats her cousin like a brother. She describes herself as being poor, *“even when I used to work the money was never enough to pay for everything, not even for a little trip. It was always a tight budget. I had to pay for the Internet, school and gas and part-time jobs never pay much. If I had to buy clothes it would not be enough”*. She now has now stopped working to concentrate on finishing high school and apply to Cambridge where she wants to study. Her typical day is spent sleeping late because she takes night classes. She wakes up around lunchtime and spends her afternoon at the computer before going to school. She only goes out during the weekend. On the computer she plays an online game that she admits as being stupid but she plays it to meet people from all over the world. She uses the computer as a communication and entertainment device; she uses MSN and Skype to talk to friends and her cousins, Facebook to play, and YouTube to listen to music and watch videos. She carries the computer wherever she can and where she knows she will have Internet access because its no use to her if it is not connected: *“the coffee-shop on the ground floor of my house has wireless so sometimes I go there. It is just down a flight of stairs and that way I never loose my connection”*. So the mobile phone is an extension of her connection when she has no Internet access. It is also useful to communicate with people that have no Internet connection or with those that are not online, *“not everyone is online at the same time”*. So if she really needs to talk to someone the mobile phone is what she uses.

Raquel's technology uses are centered on the computer and the mobile phone that she uses daily. Television, as for much of the millennials, has gone under her radar. She has had game consoles but now she plays in the computer because she has no patience for complex console games, *"I like to play but it has to be something easy because I play to relax and not to tire myself and all the console games like my cousin's playstation portable are too complicated"*. She has also put aside her MP3 player to listen to music in her computer and sometimes in the car radio. She does not own a camera and she does not use the one in her mobile phone.

She considers the mobile phone her most private technology. She owns one since she's twelve and it was a gift from her aunt and grandmother. She was the one to ask because everyone had already one. She remembers that she did not give it much use at the beginning, *"I did not even take it to school, and it stayed at home. I just wanted it to text my cousins"*. Now she owns a clamshell Samsung that she has chosen because she likes the clamshell model, *"my mobile phones are always falling so this way they are more protected and they don't break as easily"*. Price was also something that she had to take into consideration because if she had no financial constraints she would choose a more advanced model: *"one like my cousin's which is a Nokia like the ones with touch screen that has Skype, MSN and Internet access...it has it all and I think it is great to be there and write with a little pen. And games, it uses sensors which is way cool"*. On her mobile she only uses text messages and voice but she has no preference for either, it is a question of convenience, the person she is communicating with and the network carrier the other person is using. She has a black model and she would never choose a pink one although different colors are ok or even a design connected to her hobbies like cinema, theater or traveling. She also does not personalize her mobile phone because hers has no features. But if she could she would use images and true ringtones.

Raquel thinks life would be more complicated without the mobile phone, *"I would survive. I would not die because I would still have the computer so I would be able to communicate. I would specially miss the alarm clock because I can't listen to anything else besides the mobile phone"*. She finds that the mobile phone makes it easier to talk to people because a lot of them still do not have a computer. Because she is dependent on the mobile phone she usually carries it with her around the house so that she doesn't forget it and she turns back in case that happens. Also she does not feel that the mobile

phone is an interference in her life, *“when it is someone I don’t want to talk to, I simply do not answer”* but she acknowledges that when she used to date it was a nuisance to her because her boyfriend, that she did not like as much, keep texting her all the time so she left it at home on purpose. So she felt the paradoxal relationship towards the mobile phone, because if on one hand it provides her with independence and autonomy it can also be a form of control. She also uses the mobile phone to feel less lonely or more comfortable in a public space: *“when I am alone at a coffee shop I sometime pull out my mobile phone to text my friends. It is a way to be talking to someone”*.

Although very dependent, Raquel has rules for her use of the mobile phone and gets annoyed when she is out having dinner with friends and they are constantly answering calls or looking at the mobile. She also feels more comfortable answering a call when she is alone and feels awkward when she has to listen to other people’s calls.

Raquel’s story offers a portrait of young dependent women. They have a complex media ecology that no longer revolves around the television but rather around the computer, as also expressed by the other young women interviewed: *“We mostly use the radio around the house, we only use the TV to watch the news or while we have dinner but after that I use the Internet to watch series, do my research or go on Facebook and on weekends I rather go out”* (Constança, 23 year-old, university student, single, dependent); *“I only watch TV on the weekends. I share house with another roommate and the TV is on the living room which is basically my room but its her that turns the TV more often”* (Joana, 20 year-old, student, single, dependent). The mobile phone is an important part of their lives as extension of their connection when they cannot be online. They are able to choose the mobile devices they use but financial constraints inhibit more sophisticated uses like Internet access, personalization, e-mail. Without those constraints they would all choose a smartphone, an iPhone or a Blackberry. So voice and text messages end up being their most common uses. They all have special price plans targeted to young people and they manage their interactions according to them, so they choose voice when they have an unlimited price plan and text messages to people outside their networks for whom they would spend more money: *“me and my boyfriend we are tag [a brand for a price plan from the carrier Optimus targeted to young people that enables unlimited voice and text for a very low flat fee] and we call each other about seventy times a day, we spend a lot of time on the telephone and so*

this kind of price plan comes handy” (Rita, 24 year-old, internship designer, dependent). But the all feel that this always connected culture has its flip side and that they sometimes feel the need to disconnect but when they do it there is a sense of guilt and peer and family pressure not to repeat the behavior: *“not being available seems weird. I am always afraid something might happen to someone I love”* (Rita, 24 year-old, internship designer, dependent). This pressure will build up in the next life stage when professional demands are added to the equation.

2.2.2. Young Independent: Inês, finding a place for femininity

Young independent are essentially older millennials. There are at the life stage where employment comes into the picture. Millennial women are as far away as one can be from feminism but they also refuse returning to traditional gender roles. They have a genuine expectation for balancing professional and personal life but that does not mean that barriers to professional success have fallen completely. In a recent accenture survey about millennial women they still report marriage, maternity policies and pay scale as barriers (accenture, 2010: 10). Ongoing gender obstacles also include: a corporate culture that favors men; general stereotypes and preconceptions and sexism (accenture, 2010: 12).

For young independent women, the mobile phone is a blend between a social networking and a professional tool and their main concern is to project an independent and professional image which many times means a more masculine approach to what their wear or what they choose as technology. Inês is a vivid example of these women struggle to find a balance between their female identity and their professional context.

Inês is a twenty-five year old marketing manager, which is also going through grad school. She is single and not in a relationship and still lives with her family although her goal is to find a house of her own. She also has a very strong connection to her slightly younger sister with whom she shares social programs. She comes from a high-income family and that has allowed her to pursue her dreams and live a comfortable lifestyle for which she is grateful. She prizes responsibility and has always juggled a very time constrained routine combining work and the prosecution of her studies at the University.

This has taken a toll on her social life and she feels that time pressure on leisure and on the connection to her friends with which she tries to keep in touch through her mobile phone.

Starting her first job was definitely a turning point for Inês. She was able to pursue the career she wanted and that makes her feel very accomplished and fulfilled. But entering the job market brought with it increased responsibilities and commitments like *“being forced to keep a schedule and limited vacation which was confusing for me at first”*. Her networks of friends and family are all close by but she is now forced to reach them by mobile phone and facebook because time is scarce for someone that works and studies at the same time. Social networks and text messages feel in the void left by the lack of physical presence. She ends up doing lots things at the same time and tries to balance her commitments with her friends and *“try to have a balance life in all fields”*. She recognizes that *“women have a more stressful life and I think women are more multifaceted, they do more things. They are connected to household management but they also have their job and they like to go shopping and always look good and that is a lot of work. To fit everything into a days life takes up a lot of time”*. So besides having her own house, she craves time for herself and to go for walks.

She wakes up very early because she lives a bit far, and comes to work and on the days she has classes she goes home at 9:00 p.m. On the other days she tries to go to the gym but most of the time she has schoolwork to do at home. Even on weekends she longer wakes up late and she tries to leave home. So she ends up not seeing much television only immediately before going to bed or when she wakes up. Besides TV she listens to some radio on the car on the way to and from work. But her main media uses are the Internet and the mobile phone. She is the social organizer in her social network, *“I like to be proactive and entice people to go out. I set up everything and then I send my friends e-mail and keep track of confirmations. I like to do that”*.

She buys her own technology but takes her father advice into consideration because he is the one that is most up-to-date and enjoys technology. Her most recent purchase was a notebook and she values aesthetics and design in her choice: *“If it were up to me I would have chosen according to aesthetics and design but my father talk me into buying another brand because according to him it was better and would last longer so he even offer to help pay for it”*. Although she is living with her family she does not have to

share her technology, everyone has their own computer and TV set but even she considers that the mobile phone is the most private technology she owns and she also feels comfortable setting it up.

Inês has a mobile phone since she is 13th years old and she recollects that her sister was even younger, 9 years old. She thinks they got their mobile phone at an early age because it was a gift from their mother. Both parents had been early adopters and recognize the value of carrying a mobile phone in terms of control and safety. She now owns a Blackberry Curve that was also a graduation gift from her parents but that she has asked for. Before that she has a Nokia that she felt had more features than the Blackberry but now she values being able to see her e-mail, be online on the Blackberry messenger because her friends also have one. Besides that she mainly uses text messages and voice, *“I valued having a Blackberry exactly because my day is so full of activities and tasks and it provides me with the opportunity to have a social life inside a professional life. It completes us because it can’t be only about work. It is a way to break the routine”*.

Because of her job status Inês is now forced to make concessions on her self-expression like in the choice for colors. When we showed her a pink mobile phone she immediately liked it but said she would never buy a pink phone: *“I would never buy a pink phone but I would buy a white one if it were an option for the Blackberry. Even in my notebook purchase that was a question. There was a pink, a white and a black one and my sister told me not to buy the pink one because I would not be taken seriously. Pink is a childish color and because we tend to associate pink with a more feminine woman or more detail-oriented people might also think we are not professional and serious. I bought white because it is still a good color for technology but is still a bit feminine. If I could choose I would choose pink. I still have lots of stuff that are girly and I like them a lot. In the mobile phone I could not choose so I have a black one”*. To compensate the exterior masculine look, Inês personalizes her mobile phone and her computer with an image from a beach that she loves to go to, flowers and a pink screen-saver but she does not use ringtones because she is not interested in music. She also does not play because she lost interest.

Inês feels dependent on her mobile phone that she uses to multitask and expresses dual feelings about it: *“On one hand to be without the mobile phone would be great because*

I would have a less stressful life. I could enjoy things that now I cannot like simply staring at the landscape or be in silence. On the other hand, I would feel anxious. Even if I do not use it I need it to be there". She never turns the mobile phone off even living with her family because the mobile phone is both a professional tool and a lifeline to the people she loves and cares about. This symbiosis between professional and private life makes her take the mobile phone with her even on vacation and to answer phone calls even if they are job related, *"It enables me to answer something in a few minutes and get that matter out of the way. I feel more in control and reassured that things are going smoothly".*

The changing routines, the feeling that time flies away is something that becomes aggravated in the next life stage - the nesting phase.

2.2.3. Nesting: Catarina and Patrícia D., accommodating new routines

Women are in the nesting phase when they share a house in a stable relationship that can range from the traditional marriage arrangement, as is the case of Catarina, to more unconventional living arrangements as is the case of Patrícia whose relationship is with a divorced partner with a kid, which means that they have to juggle houses and weekends according to their availability to be together. When entering a more stable relationship, new routines settle in and for women that can also mean slipping into a more traditional gender role in what concerns household management and their relation to technology. Women also loose much of their prior interest for social networking but simultaneously become the social coordinators for the couple especially in what concerns family activities. The mobile phone becomes the touch point with now "distant" family and friends.

Catarina, 31 years old, has been married for four years and has no kids. She married her husband after a long dating relationship that lasted through high school and university but still found adjusting to living together as a challenge. She's a teacher and her husband is a marketing manager and she describes her financial situation as stable although she said it took them some time to adjust to constantly changing jobs because

in a still short working experience they have force to change jobs several times. Working as a teacher she has unconventional working schedules that provides her more flexibility but at the same time she brings a lot of work home and so technology serves a double purpose in her life – to support that flexible working arrangements and to keep track of her family and friends.

She has always lived her life around the same city, which means that her family and friends all live close by. She still lived with her parents for three years after starting to work and before getting married so her experience of living alone was limited to a Erasmus semester in England where she shared house with her boyfriend that is now her husband. She describes her life as being very protected with the only instability coming from the nature of her job because as a young teacher she gets placed at a different school every year. Also because of her job, Catarina does not have a very typical daily routine or a typical working space so she takes her personal computer with her and works from wherever is convenient and that can be a place at school, a coffee-shop or at home. So she is kind of a nomad in what concerns media usage. TV viewing is not much part of her routine except for some news in the morning, at night she rather be on Facebook, watch a series or a movie on the computer or on DVD.

Household management has been one of the challenges she has faced moving to the nesting phase. She admits to having had several talks with her husband and ending up in a work division that is a kind of compromise between the things that he started doing such as financial and bureaucratic matters, and the things that he does not like to do, *“I notice things to do around the house more than him. I have to remind him that there are things to be done and he does them. But there are other that he absolutely does not enjoy doing like hanging the clothes to dry. At the beginning it was a bit complicated, we even fought about it but now we have come to a sort of understanding. It was more difficult in the first year of marriage because I expected him to notice the same things that I did but he did not have the same expectations about cleaning up as I did. Don’t get me wrong I am very lucky because I know how other men are and he is tidy. Even so we have different ways of living and it was a shock”*. This more traditional housework division is also extended to technology with her husband making all the technology purchase decision, including household appliances and her mobile phone: *“I don’t know much about that stuff so I settle for his decisions”*.

Catarina also stress because of her job and her working conditions and also a sense of lacking balance between her professional and personal life. Without a schedule and being able to perform her job regardless of space she ends up working a lot on weekends and not being able to coordinate her life with that of her friends: *“I have to miss out on many dates with my friends because I end up having to work. And it is frequent to work on weekends because I was not able to organize myself during the week. I feel guilty about it but I cannot help myself”*. This lack of balance makes her wish she had more time and more money for leisure and for herself. The leisure time she has is devoted to radio that she used to listen on the mobile phone and on the computer and music that she also listens on the mobile phone so a great percentage of her entertainment consumption is done through the mobile phone.

Catarina has a mobile phone since high-school and it was a present from her boyfriend (now her husband) and she was one of the last in her group to have one because her parents did not value the mobile phone as much probably because all their daily activities were performed in a restricted geographical area. What she values most in the mobile phone is having radio, listening to music and also a nice camera. The next leap might be social networks of which she is a heavy user on the computer. She has had Nokia phones and she got used to them, which translates a certain degree of resistance to change. Besides music and the camera, she also described as being a heavy user of voice and text messages that she uses to talk to family and close friends. In the device itself she values the design and would like to have an iPhone because *“it is cool and modern and because it takes great pictures. It also has a big screen that would be good to access the Internet. But I would have to think about it. I still do not know if I really need to have Internet on my mobile phone. I have it on my portable pc and I think it is still more expensive to have it on the mobile phone”*. But although she values how it looks she does not personalize the ones she has had: *“I pick the ringtone but I do not use a music service. When I was following the 24 series I set it up with the soundtrack but that was as far as I have gone”*.

She values the mobile phone, even more than the computer, because she carries it around wherever she goes: *“I can be reached by e-mail or facebook but I might not see it right away. The mobile phone is the closest physical thing to me”*. This physical proximity translates the sense of urgency with which she lives her life, the sense that *“things might*

happen and I would not now about it". This constant connection also makes her want to disconnect, expressing strong mixed feelings about the impact of constant availability in her life: "Sometimes I turn off the mobile phone so that I don't have any connection with the outside world but then I get anxious when I am about to turn it on and when I have a lot of messages I have to return them all which end but being more of a hassle. I feel people related to my work like students and parents are entitle to have my number so give it out to everybody but then I feel the need to step away from all that connection, from the "where are you?"; on the other hand for someone like me that spends her week from school to home and vice-versa it is great to be able to keep in touch online or through the mobile phone".

Because Catarina has only one mobile phone number her private and personal live become intertwined and she describes how her student's parents call her up on weekends. She welcomes the freedom of movements the mobile phone provides her, not needing to rely on a landline number or being able to talk to people that do not have the skills to reach her otherwise as is the case of her student parents but she also thinks that there is an excessive need to always be available, of always being connected, *"mobile phones are sometimes an intruder in the classroom because they are too young to understand the rules and obey them. I try to act naturally to the use they give them but sometimes they step out of their boundaries"*. So even in her own job Catarina is forced to face the ambiguities of mobile phone use.

Patricia D. has a very different life story. She is a thirty-six year-old marketing manager with unconventional living arrangements as both her and her partner kept their own houses and live together in the same house for certain periods of the week. It is no wonder that her main need is for stability: *"he is moving to the North of Portugal and we still don't have a place we can call our own. He is divorced so some weekends he has to spend with his son and on others we have to visit my parents that leave far from me so I don't get to see them during the week. We spend the whole time moving around and we don't get any rest"*. For Patricia that has family living far from her and even abroad and who has a very unstable daily routine with her partner, the mobile phone is her lifeline to her network of affections – the easiest way to be reach and to reach someone. The mobile phone also plays an important role in her job and like Catarina

she does not own two devices, her private and personal life are blended into a single communication device which means she is also constantly available for job requests.

Patricia is slightly older than Catarina and has more professional experience. She has tried out different jobs but now feels fulfilled with the present company she works for which is a construction company and thus a very masculine and technical working environment. She was one of the fewest women that stated to have felt discriminated for being a woman: *“Not in terms of credibility but in terms of recognition I feel we always have to be one step ahead of men. Even in my job, which is usually more feminine, I feel the same because I work with a lot of men. We have to excel in our skills to prove them that we can get the job done. There is a lot of prejudice against my role in the company and my training, because I am not an engineer”*. This need to excel is also a source of stress because on top of having to multitask there is a need to prove she is fantastic at her job. Her challenges also lie in the professional field and in the will to consolidate her performance at the company.

There is no typical day, not in her job and not in her personal life. At work she spends a lot of time at the computer and with a stable relationship she reduced her online consumption: *“There was a time when I used to go to Second Life a lot but now I only go there for events like a photo exhibition from a friend. I don’t go there anymore to socialize. But up to a point in my life, Second Life was like going for a coffee after work. I lived alone in Lisbon and it was complicated to take the car and then park it. When I started dating I found myself having less time for that sort of things. Before, I could do whatever I wanted with the weekends, and now we have to share availabilities and dispositions. During the week we also try to do things in a different way and spend less time in front of the TV screen or the computer”*.

Patrícia could not remember when she got her first mobile phone, probably when she started to work and now she has a phone from her job that is a Nokia. The features she uses most are voice, text messages and the camera for photos and video, mainly for professional purposes. She has Internet access on the mobile but she only uses on rare occasions and she still has not configured the e-mail although she recognizes it would be useful on the days she is working outside the office. She does not personalize the device; *“those are annoying extras for me”* and she would never choose a pink phone: *“I would choose the iPhone because it has an interesting aesthetics and a fabulous*

marketing campaign. But I am happy with my Nokia because I value ease of use. I would never choose a pink phone because I am a low profile person and like things to match my personality. I would not see a problem in using that kind of device but it would have to be in another professional context, a more informal one like an advertising agency”.

Because of her lifestyle Patrícia is very dependent on the mobile phone, *“I would die if I had to spend two weeks without one. Only two hours is enough to feel naked. I do a lot of work from my mobile and I feel less anxious because it is my main point of access. I have no landline phone at home. I feel very anxious when I do not have it and I turn back even if I am already half way to get it”.* She also shows an emotional connection stating that it plays an important part in the romantic relationship and that she keeps her nephews text messages to carry around with her. She also said that the mobile phone kept her company when she was alone in a public space and that she also feels safer: *“I park away from home and when I am walking from my car to the door step I like to be talking on the mobile phone until I reach my apartment”.* She also uses the mobile phone as an avoidance mechanism: *“I have sent messages to someone telling them to call me so that I could end a conversation or a meeting”.*

But even being a heavy user she is very strict about rules and she condemns using it while driving or letting it ring at gatherings like church or conferences and so she also says that she prefers to talk through text messages: *“When I am talking on the phone I try to be discreet because we all loose the notion of where we are and we end up disturbing others. I work in a open-space so we also try to be careful about ringtones. I usually keep mine on vibrating. So now I end up using text messages a lot more, even in my job. They come in handy because it is faster and they are more efficient because it is already written down”.*

Nesting women have usually moved into a new home where they do not have a landline phone so the mobile becomes their main source of contact with friends and family for whom they have less face time than before. They blend professional and personal live and they usually don't see the mobile phone as an intruder, on the contrary, they feel less anxious having one around because it enables them to perform their tasks at a distance or solve problems more quickly. Their levels of personalization are very low and their option is for devices that project a professional look. Having a partner makes

them transfer the technology choices, an action they justify by their lack of interest or knowledge. Some of these women's practices will change in the next stage and others will be reinforced, namely the personalization level increases as women have kids they start using the mobile phone as a portable photo album which means placing a higher value on the camera features and their dependency peaks with the constant need to be available for any problem their kids might have or because leisure time and social interaction is reduced dramatically.

2.2.4. Mothers: Carla D, Sara, and Ana D., craving time

Portuguese mothers do not follow some international trends like the American “mommy-trap” phenomenon where women abandon their careers as they become pregnant and have kids. As described in chapter 1, Portugal is the European country where motherhood has the least impact on female employment or even full-time employment. But that does not mean that it exists a less traditional gendered house work division and women have still the main responsibility for care giving and house management, “Today’s woman is still the designated chief operating officer of the home” (Miley & Mack, 2009: 1). This pattern leads to a dramatic reduction in quality leisure time for women and reduced media consumption and also low level of Internet usage outside the workplace. With low levels of Internet usage the mobile phone becomes the sole or main contact resource for women. It also becomes an electronic leash or a tool for remote mothering, replacing their physical presence by their kids. Of course women’s experience as mother varies according to their kids age so we will give voice to three very different experiences; the first one is Carla D., a recent mother of a baby girl that is also unemployed, the second is Sara mother of two young boys, her case is insightful on how gender roles and how “responsibilities on the home front continue to hold women back from taking advantage of professional opportunities and fully devoting themselves to their careers. Women do not have the same career trajectory as men do, either because they opt out, prioritize family over work or take time off to have children, which can handicap them in the long run” (Miley & Mack, 2009: 6), and finally Ana D., mother of a young boy and an infant girl whose son already has access to a mobile phone and that although being a successful

independent business woman struggles with traditional gender role division of labor at home. Ana D. is the best example that mothers in a relationship assume the bulk of household and child-care responsibilities regardless of whether they or not or if they are as successful as their husbands and partners or not.

Carla D. is 34 year-old women, a marketing manager she recently become unemployed for the second time in her career. She is also a recent mother of a baby girl. She is married and comes from a struggling family. Her family that includes a younger sister does not live close by so Carla ends up not having much family support in her daily routines. The husband also works in marketing and is in a stable job arrangement that enables her to live her unemployment with more ease. The first unemployment experience was very traumatic for her and caused a major emotional shift in her life. Five years ago she decided to cohabitate with her now husband and that was also a major life shift: *"We feel the responsibilities in a whole different way: Bills to pay and clothes to wash. The first months were really hard, so moving together had a stronger impact on my life than getting married two year after"*. Now she is going through a second major shift with becoming a mother and her daily routines revolve around the baby: *"The day no longer has days or nights, its organized in periods of three or four hours"*.

Carla and her husband have a typical division of labor that has been described as inside and wet jobs for her and outside and dry jobs for him: *"He is the one that pays the bills or handles any technological issue like cable TV, he also does stud around the backyard or fixing things. I do all the rest like cooking and the laundry. I only have outside help with the deep cleaning and the ironing"*. Being unemployed the household management ended up being even a greater toll to her: *"Now that I have been at home I end up doing more things. But it is a bad habit"*. Not working outside the house enables her to devote some time to some leisure activities like going on the Internet, reading the e-mail, browsing Facebook and Twitter or writing on her blog about social media. Besides those activities she also watches some TV at night, records and then watches some soap operas and watches some series on DVD. Now that she is home she also spends some time talking to friends and family on the mobile phone. But all that has to be done in the short breaks between breastfeeding and taking care of her baby girl. With this routine she admits feeling stress out: *"I think it is harder for a woman because we are in charge*

of more tasks. The tasks my husband performs are not daily. He can work in the garden every on and off week but I have to make dinner every day. It was very difficult when I was working. To come home and have that responsibility...He only managed dinner on occasions. But society is structured that way. The man immediately thinks he is not going to wash the bathroom, they think it is a woman's job. When we moved together my husband told me right way that he was not going to take care of the house or clean it, he rather had a maid but there are things that I rather do myself. For example I like the way I arrange things in the dishwasher, if he does it everything gets confused". Technology for Carla is a valuable help around the house.

Time pressure and time bind also part of Carla's life: *"I feel I have no time to myself, to go for a massage, or lay in the sofa whenever I want, or go out for a coffee whenever I feel like it. My life has become dull. On the other hand I know I will miss this time with my daughter. I feel happy for being able to get pregnant but I don't feel 100% fulfilled. I need to have a job and to socialize and go out without my husband and daughter. I miss working outside the house, being with other people and learning new things".* So Carla tries to break her isolation using the mobile phone and the Internet on a daily basis. She has also started to value the camera more to take photos of everything the baby does. She even thinks she uses the mobile phone more that she is at home, not only to keep in touch with other people but also as reassurance: *"I always think something might happen so I don't leave home without it. I no longer have my own safety to think off. Nothing can happen because my daughter is there".* She also values more having a camera on the mobile phone to immediately share pictures with family and other features that she did not use before like the text messages and the agenda: *"I used to make my appointments and reminders on Outlook by on my personal computer I only have open source software so I find it easier to use the mobile phone to keep track of tasks and appointments and I also use text messages more because they are less intrusive in my routine with the baby. I can answer when I am free from my baby tasks".*

Carla has a mobile phone since she started to work that she bough with her salary. Now she has a Nokia that was her husbands: *"The company gave him this Nokia but he wanted something better so he bought a Qtek for himself and I took his".* But if she could choose she would have an iPhone because *"it is modern and it gives you status. I wouldn't mind having a Diva either but most mobile phones targeted to women seem*

teenage like to me". She personalizes her mobile with a photo of her daughter and she also uses a special case, some charms and a strap: *"I think the mobile phone can be a fashion accessory but I would have to have lots of money to have mobile phones in different colors or one to use during the day and another to go out at night. I think mobile phone can be more attractive, have different colors like silver or golden, have a mirror or be branded but for me its main benefit is to be able to talk wherever we are"*. So although Carla is fashion oriented and is a heavy user she places an emphasis on the communication function of the mobile phone and on efficiency features. She does not use the mobile phone for any service or leisure content like games, Internet access or music: *"I don't like things to converge and so browse the Internet on my notebook and I have an iPod to listen to music"*.

The mobile phone also plays a role as a shield for social interaction: *"I must admit that when I am at a public place alone I use the mobile phone as a distraction. It seems that if I am there without doing nothing it will be misinterpreted. It seems funny to be eating and staring at air. And maybe that is more common in women because we worry more about what other people think. A man does not care. I think the mobile phone can be a virtual bodyguard like in a bar or a restaurant to avoid being approached. It can also be useful when we do not want to talk to someone on the street, we can pretend to be on the phone, it provides an excuse for not stopping"*.

Sara is also married and has two boys aged six and five. She is a social worker in a non-profit organization and her husband is a psychologist. She describes herself as being middle-class but she also thinks that it is complex to describe her financial situation: *"We don't live badly but we have to manage a lot. As a couple we can face our expenses because my husband earns more than me. We decided that he should work more outside the house and I am in charge of the kids. We made choice that we knew that would have a cost, for example our kids attend a private school. We also have a person that stays with them since 16:30 until I get home. I cut on traveling and on technology, mobile phones; it is a matter of resource management. We don't have a LCD or a fancy car. We also cut on leisure and the kids eat the food I make and not the school's food"*. Sara describes very consciously the trade-offs she made in her life and how they affect their expectations and daily routines. So although she is a real enthusiast for new technologies and formerly an earlier adopter, technology took a

backstage in her life, as did her career and professional development which makes Sara wish for a new professional challenge in a different field, one where she could learn more.

With 23 years, Sara left her parents home to live alone. She still depended on them financially but she was the sole responsible for her house. She feels that live treat her well because it was easy for her to find the first job after college and since then she has changed jobs without going to a job interview. She got married at 28 and had her first kid a year latter. That for her was the biggest turning point in her life: *“time has to be well managed and you stop making decision only for yourself”*. She also felt that motherhood brought with it job discrimination: *“I don’t regret have made the agreement with my husband that I would take more responsibility for raising the kids but I miss out on a series of thing like getting an advanced course. And in the relationship with boss and my colleagues I see that maternity is an issue. Having to be there for the family is not well regarded. I get home very late because I don’t get any flexibility to work from home and leave early. Being a mother is still something that organizations have problems coping with. I stand for myself but it is always an underlying issue”*.

With all the family responsibilities on top of a full time job, Sara’s daily routine is very strict. She wakes up early, drives the kids to school and has a little bit of time on her own driving to her job when she listen to the radio. That’s also when she is able to see her mobile phone. She spends most of her day working on the computer and because her work revolves around computer based tasks she uses the landline phone in the office to manage household affairs although she always keeps the mobile phone next to her for any emergency. When she gets back home she dives directly into her tasks with no time for some leisure or television, it is all about making the kids dinner, getting them to bed, getting things ready for next day. After that she has some time to watch some TV and she waits for her husband to have dinner and spend some time together. At the weekends she gets some break from the routine but she invests on getting out of the house and spending time with other family members without having to cook. It is also the time when she uses the mobile phone more because it becomes her main point of contact for making arrangements. With all that she feels completely stressed out: *“I have a very scheduled life. Only now that I have reached 35 am I learning to be more*

flexible because the kids are a bit older and it allows me not to fuss as much". The routines also leave little space for a wide network of friends and to keep in touch she uses Facebook, Messenger and e-mail to swap pictures.

Technology, because of financial options and time constraints, is no longer a priority in her life: *"I wanted to have a Led TV and maybe another one for the kids. But we only have one and it is really old. I also like to listen to the radio and we have a good stereo at home but I also would like to have an iPod system. The kids have a Nintendo Ds but I also wanted a Wii but it is not a priority. I like technology and I like to be up to date but the question is that it also takes up a lot of space. A camera is something I really have to invest in. I only have a camera on my mobile phone. The computer is the one I have at work because it is a portable one but during the week I try not to take it home because I already spend a lot of time on it"*. Her history with mobile communications is proof of her interest by technology. She has had a mobile phone for a long time and before that she had a pager: *"It cost 40 contos ["contos" was the popular expression for 40.000 escudos which was the former Portuguese currency; The equivalent of 200€]. My father bought it for me because he also likes technology a lot. The pager was transparent and cute but soon after came the first mobile phone. I remember that in circle of friends everybody made fun of me for wanting to have a mobile phone and I was the first one to have it. Today they are more dependent than me"*. She always used the mobile phone for keeping in touch with friends and family, to set up dates, but it never played a role in my job. Nowadays I sometimes give my number but it is still rare. Besides voice she uses text messaging, the camera and the agenda to keep track of birthdays and to store messages, *"It is my memory but I am not dependent on it, not as much as my husband. I turn it off at night and if my husband is with me I just leave it at home, if someone needs to talk to me they can just call my husband"*. Using the husband's phone as proxy for theirs is in fact a common behavior among women that are mothers. Because they use the mobile phone essentially to communicate with family and close friends and to keep track of their kids, when the family is together, on the weekends, they simply forgo the use of the mobile phone. Nevertheless Sara also admits that she feels calmer when she has the mobile phone with her and she never regarded it as an intruder.

If Sara could choose she would have a Blackberry or an iPhone, *“I would definitely choose one with a good camera and if I had no financial restrictions I would have one with Internet access and would use MMS more. I would also want a device where I could listen to music”*. Because she has traded her technology uses for the family budget, she bought one of the cheapest options in the loyalty rewards catalogue of her carrier. With a low-end device she also does not personalize it as she used to do in the past, for example buying ringtones.

The mobile phone has also an emotional affordance for Sara: *“lots of exchanged text messages. It is also a way to solve a question or a problem when we are away from each other. And it is private so I can walk away from my colleagues when I am in a middle of an argument”*. She also reports how mobile phones are more personal and informal and landlines more professional and formal: *“If it is professional and formal I prefer to call the landline even if I have someone’s mobile phone but if it is personal I will call their mobile, for example, the parents of my son’s colleagues. I think is less formal to call them on the mobile than to call them home”*.

Ana D. does not have to make the trade-offs Sara is forced to make but she is struggling with the need to sacrifice personal time for a clean and organized home. Ana is 39 years old and she is a mother of two, an adopted nine year-old boy and a four year-old girl. She is a commercial manager that manages her own business and her husband is a designer. She describes having a comfortable financial situation although some financial investments in a time of economic crisis have taken a toll in their financial comfort.

For her the main turning points in her life were their two children, being able to adopt the first one and giving birth to the second. And the main changes in her life were the sense that they could no longer think only on both of them: *“that moment when you get home and you want to do nothing, is longer possible. I miss having moments of our own but at the same time we can longer live without the kids. If they don’t sleep at home we need to have a program otherwise we can’t stand the silence. But I definitely miss having my schedules, now I live on their schedules, school, swimming lessons, dance lessons, football”*. Although being responsible for several business initiatives, Ana is the main caregiver for her family so she wakes up very early and works for a few hours before waking up the rest of the family. After taking the kids to school, she comes to the office and then it is also her that picks them up and takes them to their activities. She

then gets home, makes dinner and gets them ready to bed. After that she tries to watch some TV: *“After half past nine they all now that the remote is mine. Until that time they, including their father, can watch what they want, but after that I decide. We have a TV in our bedroom but we don’t watch it much because I immediately fall asleep”*. On the weekends the family tries to go out and see other relatives but on her daily routine Ana cannot count on her husband’s help and she recently lost the professional help she had around the house: *“All the tasks are mine. He only helps with the kids like giving them bath. Even basic things like putting the clothes in the hamper he does not do it. I am not happy about it. I used to have a person coming four days a week that kept everything clean but we had a disagreement and it is hard to replace someone like that. I was also hoping that this could be an opportunity to educate my husband and my kids but it is been six months and I don’t seen any improvements. He simply does not perform the tasks he commits to doing and I end up having to do everything”*. So once more for Ana the main need in her life is more time to be with the kids and for herself, *“to be able to read a book or watch more TV without falling asleep”*.

From Ana’s point of view technology enables her to be more productive and to coordinate everything at a distance. The computer and the mobile phone fit that role in her life. She also likes to watch TV and listen to the radio. She used to play videogames but now *“I gave it up for the kids. I lost interest in it”*. As for the mobile phone she is an early adopter, she has one since 1997 that she bought for professional reasons. Now she has an iPhone that her husband picked up for her, *“At first I did not want it but now I am pretty happy. It has a large screen and I can use it as a calculator so I don’t have to carry one with me.”*. The features she uses more are voice and text messages and the Facebook app. She also values the aesthetic: *“I think mobile phones represent the person’s personality, for example I have a friend that had to have a Dolce and Gabbanna golden phone”*. She also uses the camera to take pictures of things that she wants to show to someone or to personalize her device.

Although Ana is a heavy user she describes herself as not being dependent on it: *“On the weekends I make myself forget about it. If the battery runs out on a Friday I don’t charge it until Monday. I think people use it too much especially the younger and the older – every call is an emergency but in fact in most cases it is not”*. But she

recognizes that the mobile phone provides safety and enables a better coordination of daily life.

Mothers, like the ones we introduced here, are time-starved, stressed and unhappy with their routine life's so they are looking for solutions that will help them manage the complexities of their life's, lessen their stress and workload and give them more time to focus on what's really important which is generally time with their kids. The mobile phone satisfies some of these needs allowing for multitasking and to reduce their anxiety but mobile phone companies have still a long way to go in serving this customer with women reporting that they do not use any service or content.

2.2.5. Sole caregivers: Cecilia, holding the world in her shoulders

Single mother are even more time and financially constrained so what they want is no frills and time consuming technology. For them the mobile phone is a blend between remote mothering and social networking. They need to keep track of their kids and, often, elderly members of the family but they also want to keep track of their social networks of friends. Cecília is an example of this duality.

Cecília is a 46 year-old divorced woman, mother of a 14 year-old son that spends half the week at her house and the other house at his father's. She's a woman devoted to her career and her professional development, continually attending courses to improve her skills as a human resource manager. As most mother one of her main turning points was having a son and then the divorce that brought an increased sense of responsibility and had a huge impact on how she managed her time and her priorities: *"I need to devote my full attention to my son when he was with me even if I was studying. I had to rebuild the way my life was organized, how I managed my house. I had to stop some professional activities that I had to be able to be there for my son"*.

Cecilia's routines are now divided between the days she has her son with her and the days she don't. When she does the day revolves around his schedules and when she doesn't she has time to date. She has been dating for seven years with a divorced partner who also has a daughter but they both decided to keep separate houses. As for

technology and media uses she spends a lot of time in computer to keep track of her social networks to keep in touch with friends and colleagues. She watches TV with her son and radio in the car.

Besides her son, and as most women her age, Cecília also has to take care of her parents. Her mother recently passed away after a long illness process that was very demanding on Cecilia's time now she still feels the need to always be available for both her son and her father and there is where the mobile phone plays its main role. She no longer recalls the time when she first got a mobile phone. It started outside a professional use but now it also became an important tool in her job: *"I would have more difficulty in giving up my mobile phone than my computer. It is where I have everything, my contact list, birthdays and it is the easiest way to reach me. I give out my mobile phone number to everyone. I gave support to people that are sick at home and its easier for them to have a direct line to me and all my colleagues have my mobile phone but not all have my e-mail"*. Because accessibility is her main concern the features Cecília values the most are ease of use, access to the Internet and the agenda. Radio, music and camera she rather uses other devices that perform better. She also does not personalize her device but thinks that it is a highly personal device: *"I would never touch someone else's mobile phone, let alone my boyfriends or my son's. It is his space, a personal object"*.

Cecilia is heavily dependent on her mobile: *"It is always with me. I never turn it off. I used to turn it off during the night but when my mother got sick I stopped doing it. I am afraid someone might need me. I had to spend a day without it and it was a bit hard, not being able to keep track of my son. When I am on vacation I don't like to be disturbed by phone calls but I can't turn it off either"*. Regardless of ambivalent feelings she describes the mobile phone as being a fundamental tool in her life that helps her keep track of her daily routines both private and professional and to keep in touch in her friends and family.

This connection to the outside world of home is what is most important for the mature independent like Carla P. and Ana.

2.2.6. Mature Independent: Carla P. and Ana, back or still in the game

What we call mature independent women are those women that live solo, never married or are now single, through divorce, separation or because they have become widows and have no children. We chose to present two examples in the extreme of age difference: Carla P. is a 30 year-old woman that ended a eight year cohabiting relationship and Ana is a 56 year-old woman that has was never married nor had a long stable cohabiting relationship. We could not find national statistics to support the evidence but international data points in the direction of a greater interest of single women for technology. According to the “Targeting the Single Female Consumer” report³⁸ single women were much more likely to say they would like to buy a home computer than married women and they were also more prone to innovation. These characteristics come out in the interviews to both Carla P. and Ana. The mobile phone caters to their solo lifestyles by providing a social networking tool and also safety to sustain their independence and freedom of movements.

Carla P. is a 30-year-old woman, now single and living alone. She is rebuilding her life after a broken eight years relationship that took her to live out of the country. In this stage of her life what is most important is making new friends and rebuilding her networks that she lost or that are now scattered between Portugal and Germany, where she lived. She described herself as a technology lover and admits to having “gadget” as a nickname, although she bluntly admits that this is not common for women. She in fact describes being a tomboy as a kid and finding her femininity later in life. Her fascination for technology came from her father that always thought that access to the latest technologies was a source of knowledge and learning and because of that he always have his daughters all the technologies they needed or wanted. Nowadays it is Carla that buys and chooses her own technology but she feels that that is not common by the reaction of the people that technology stores. She owns a copycat iPhone that she ordered from China but she wants a Blackberry because of e-mail access. She has a very functional but also emotional relationship with technology, she would choose a mobile phone based on its features but she cannot delete the messages she receives. She does

³⁸ Source: Business Insights

not like to share her technology with other people, specially the mobile phone, because contrary to the computer she cannot protect the personal information on it.

With a high demanding job Carla has not much leisure time but she tries to get her household chores out of the way during the morning so that she can be available for unexpected programs with her friends: *“If someone invites me to go out for dinner or shopping I usually accept and I like to be available for that sort of things. Living alone can be pretty lonely and I had to make new friends and relate to new people which is not always easy”*. When she does not have a social program she tries to go to the gym and at home she watches some TV and goes on Facebook. She uses the Internet on a daily basis and she spends the whole time in front of the computer at work.

Carla’s house as her nickname points to, is full of gadgets; she has an automatic vacuum cleaner, a Blu-Ray reader, all sorts of game consoles, digital camera, an iPod and a GPS. Devices that she chose and bough by herself, an attitude that she feels people don’t find common: *“When I am browsing for something I feel people in stores think I do not know much about technology because I am a woman. When I ask for something more complex they usually feel the need to confirm that it exactly that what I am looking for. Sometimes they think I am mistaken so I try to go straight to what I want without asking and I do my research at home”*.

As for her mobile phone, she describes as being the most private technology she has. She had her first one at the age of 17 and it was a gift from her father for safety concerns: *“I felt like a grown-up because I has a mobile phone which at the time was something only grow-ups had but pretty fast everybody started having one and it became a mundane thing to have”*. She is very self-conscious of being dependent on it so she tries to control its use like immediately reaching for it at a supermarket when you cannot find the person you went with. Her wish phone is a Blackberry with dual sim because she feels the need to separate the professional number from the private one. She would want a Blackberry because she finds it sophisticated and it allows for an easy access to e-mails so it allows for constant availability. She never turns the mobile phone off and she carries the charger with her in case she runs out of battery.

Having a strong bond with the technology she owns she personalizes the objects she can like the computer, the mobile phone and the GPS. On the mobile she uses photos of her

friends and accessories like cases or coloured headphones. The main features she uses are voice and text that she find practical. As for music she rather use the iPhone but she does use the camera on the phone for something unexpected. The bond is also emotional; as she describes not being able to erase the messages she receives. The mobile phone is also a safety and avoidance tool for Carla: *"Sometimes I pretend that I am talking to someone. It is useful to avoid people because they feel intimidated and don't take the initiative of walking up to us"*.

Years apart but the mobile phone has the same meaning for Ana D. a 56 year-old woman that lives alone with her cat. Ana is a very hard-working woman that keeps two jobs to uphold her independent lifestyle: *"I would like to have a person to share my life with but I don't sacrifice myself for that"*. She has a high media use that ranges from the TV to the daily use of the computer, reading books and going to the cinema. Because of her workload she finds herself pressed for time: *"I wanted to be able to give up my second job as a translator to be able to go to the beach more, spend more time with friends, go to concerts and museums"*. She also plays games on the computer and she does not like to share neither the computer nor the mobile phone, *"I have too many personal messages there"*.

Safety was the trigger for getting a mobile phone: *"Once I got stuck on the high-way and I could not reach a person. I felt I had to get something to talk with my dad. Before that I felt that no one needed to know my whereabouts but we can also lie with the mobile phone"*. Today she has two, a job-phone and a personal one. The personal one she chose because it took good pictures and because it was a clamshell model, *"I am very distracted and I kept making calls by mistake"*. She uses the camera to take pictures of the cat but the main purpose of the mobile is to keep her company and an emotional reassurance tool: *"I keep all my messages and notes in there"*. If she could choose she would have a iPhone because she confesses to enjoy technology and would value having Internet and e-mail access.

For Ana it would be hard to go without her mobile, *"without noticing we pour our memory into it"* and she feels calmer with she has it. Emotional reassurance and freedom of movements are for her the main benefits. These are also important benefits for empty nesters like the women we will introduce next.

2.2.7. Empty Nests: Fátima and Maria, nests not so empty after all

Empty nesters are finding out that their nests are not so empty after all and that they are so time constrained as they were before, when they had a full time job. For them the mobile phone means safety and a connection with the outside world. They show high usage and leisure uses when combined with low Internet usage or lack of Internet skills.

As we could see from the quantitative analysis, ownership and use drops for older women but we must understand that this is a nuanced reality. We are going to tell the story of two friends, Fátima and Maria, to illustrate the importance of interpreting the use of the mobile phone in articulation with the user's media ecology. Fátima, with low Internet skills, is strongly dependent on her mobile phone: *"I feel naked without it (...) it is always in my pocket and goes with me everywhere (...) It is how I keep in touch and it is safety, now even more"*, but Maria says she rather use the computer. Companies often underestimate the interest of older women on mobile technology (Kurniawan, 2006), however our interviews have shown that they are keen to understand, enthusiastic to learn, and actually use some advanced features of mobile phones such as MMS (multimedia messaging services).

Maria is a 60 year-old retired school teacher that was obliged to take full time care of two of her three grandchildren, a nine year old-boy and a three year-old girl. She also looks after another granddaughter. Because of that she says that she *"wakes up running and sleeps running against time. Now that I am retired it is even worse that when I was working and my husband only helps with the car pools because I don't drive which is actually my main regret"*. The daily routine of taking care of three children leaves little space for leisure activities like the radio or the TV. But she does use the Internet on a daily basis for everything from paying the bills to searching health topics related to the kids.

Time constraints also inhibit a more close relationship with friends which she describes as having the same issues. To keep in touch she rather uses the landline phone because from her point of view it is cheaper than the mobile. She has one over eight years but she says she did not want one and still does not use it much. But with the increasingly

complex school schedules she now started to value the mobile phone: “I went to pick up the kids from school but it started to rain and I had no way to call my husband. I am starting to recognize that it comes in hand.”

Although she considers herself very proficient in the use of the computer, on the mobile phone she only uses voice and read text messages and neglects all other features including personalization. Her friend Fátima is on the opposite pole.

Fátima is a 56 year-old retired insurance professional that also takes care of one grandson. She does embroidery as a hobby and made a small business out of it. During the week her life revolves around the television which is always on, *“I have five TV sets, one for each room and I go around the house I always have one turn on and sometimes they are all turn on”*. But Fátima never used the computer or the Internet; and her husband performs all online activities. But it is completely different with the mobile phone, she has one over many years and she uses voice and text messages to keep in touch with friends and family and to coordinate the daily activities. She even uses it for her small handicraft business: *“it keeps me company and it is also a way to feel more safe. I once had a flat tire in the middle of nowhere and I truly regretted not having a mobile phone”*. Fátima also valued having a camera feature and took pictures of her grandchild to send or show his mother and keep as a souvenir.

Fátima never turns her mobile phone off and she carries it everywhere, in fact, she was one of the fewest women that kept her mobile phone on the table during the whole interview. Fátima is a good example that the mobile phone provides a communication channel for those women that have no Internet skills; it is their way of keeping in touch by sending text messages and conducting their casual conversation.

2.3. Conclusion

Portugal has certain characteristics that make for an interesting case study for the study of the gendering of the mobile phone. Besides having a high mobile phone penetration rate it also has one of the highest employment rates for women. But Portuguese society is also full of contradictions in what concerns gender equality: motherhood does not

seem to hinder women's commitment to working outside the home but that does not translate into a more equal gender division of labour. Portuguese women end up being burdened by the pressures of a double shift. They are also the main caregivers for children and the elderly and thus time constraints are amongst their main hurdles.

To analyze women's practices towards the mobile phone we combined quantitative and qualitative data. The goal of combining quantitative and qualitative data was to provide a more nuanced interpretation and understanding of the use of mobile phones by Portuguese women. Going through the numbers we found that ownership seems to be especially determined by income level, age and education with the lowest percentages being for women that are older, retired, with no formal education and a low-income level and the highest percentages for women that are younger, student or active workers with secondary education and a high income. It was also clear that the use of the mobile phone is mostly private with family members concentrating the majority of contacts. Friends are important for young women or for those women that are students. But, in the interviews, it was possible to identify that mature independent women also had a similar behaviour to that of young women and students. Mature independent women, either because they do not have a stable relationship, are divorced or widows, have the need to reach out outside the family and resort to friends as their support network and thus have similar practices to those of younger people. One example of that proximity comes from Vanda; she is now living in companionship but when she was dating and living with a divorced friend and her 14 year old daughter she confided in the teenager: "it was a very funny phase because my friend's 14 year old daughter was my companion, she was the one that asked me if the guy had sent me a text message or told me to send him a text. It was a adolescent period of my life" (Vanda, 36 year-old, training technician, nesting).

So in the quantitative analysis we found very similar results to those of international studies, pointing to a classic innovation adoption curve with younger and more educated women being more prone to new practices and older, less educated women presenting themselves as laggards. But many questions were left unanswered by the quantitative analysis and the interviews based on a life-stage approach and not socio-demographics allowed for a better understanding of the underlying reasons for certain choices women make.

The women interviewed range in their degree of mobile phone use and in their social context of use. Some see the mobile phone as a “tool” and use it only “instrumentally”, but for others this relationship goes further and the mobile phone became part of the way they think about themselves and other people. The mobile phone is always the most private and personal technology for them, the one thing they are more physical close to; the one thing they always carry along. Albeit this proximity, there is a low level of personal choice. Women’s phone choices suffer from the “wife-phone” and “job-phone” effect meaning that they either get them from their husbands, sometimes much like a used car, or they have a mobile that belongs to the company they work for. These effects sometimes lead to low levels of personalization. But lack of personalization does not mean that they do not value the mobile phone. Women value the mobile phone not for the device itself but for the role it plays in their life and they show a high degree of dependency across all life-stages although underlying reasons vary: For mothers it is safety and control of their children; for young dependent it is autonomy; for mature independent it is accessibility; for single mothers a blend of accessibility and control and for empty nests a blend of autonomy and safety.

Mobile phones have different roles depending on women’s turning point location so it is all about the role women play and not about socioeconomics. Thus contrary to the image projected in statistics, interviews provide a life trajectory for the mobile that does not present a linear trajectory across the life course of women’s lives as shown by mature independent women and empty nesters.

Part III – Constructing and Deconstructing Gender in Mobile Communication

*It is the pervading law of all things organic and inorganic,
Of all things physical and metaphysical,
Of all things human and all things super-human,
Of all true manifestations of the head,
Of the heart, of the soul,
That the life is recognizable in its expression,
That form ever follows function. This is the law.*

Louis Sullivan, 1896

Mobile phones have been integrated in our daily lives mainly as a personal device that places emphasis on our individual identity. Mobile technologies are not new but what is new in the mobile phone is the possibility to reach directly a person and not a place and thus, the mobile phone is regarded as a highly personal object and an expression of its user's identities. But although mobile phones are personal they could be used as collaborative and creative tools. They allow their users to create and share their personal contents: pictures, videos, music, and games. They are affective technologies, objects of mediation of feelings and emotions. This emotional connection has translated into personalization practices that include wallpapers and ringtones. They are also multifunctional and multidimensional objects that induce profound changes in our context: new uses of time and space, new ways of interacting with others and the end of barriers between the professional and private, leisure and work, family and school.

In the following chapters we begin by addressing the mobile phone as a “social stage” (Caronia & Caron, 2004; Goffman, 1959; Oksman & Turtiainen, 2004), a site where gender performativity takes place: what presentations of self do women produce in mobile communications and what kind of frame does mobile phone communication enable? The cultural meanings attributed to the device are a part of the social stage where women construct meanings of themselves and others and this occurs through the choice they make of the device. What symbolic meanings do they attribute to it? What is their gendered nature?

The fact that women use their own mobile phone is significant in terms of self-expression but also as an instrument to define their personal space and to let it be inhabited by technology that they alone control.

Two of the most important human perceptions are space and time. We define ourselves as human beings in a certain time and space context. These dimensions are being transformed as our experience is mediated by mobile technologies. But how is this transformation occurring in women's lives? Are women conquering new spaces that were traditionally hostile to them? Are they allowed a larger scope in the management of their time?

Finally we analyse the relation between women and mobile phones through the lenses of "fragility". The stereotype is that women are neither interested nor capable in what regards technology. We want to propose the mobile phone as a location where the fragility of gender stereotypes becomes apparent. We also want to propose "fragility" as an analytical tool to incorporate contradiction and agency in women's appropriation of the mobile phone.

1. The Performativity of Mobile Phones

*The future must no longer be determined by the past.
I do not deny that the effects of the past are still with us.
But I refuse to strengthen them by repeating them,
to confer upon them an irremovability the equivalent of destiny,
to confuse the biological and the cultural.
Anticipation is imperative.*

Hélène Cixous (1980: 245).

In the scope of understanding gender as a cultural construction (Beauvoir, 1989; Butler, 2004b; Haraway, 1991a; Wajcman, 2004a), gender can also be understood as performative (Butler, 1990, 1993, 1997, 2004b, 2004c), as a “doing” (Candace West & Don H. Zimmerman, 1987) or as a “display” (Goffman, 1976b).

The work of Goffman on gender and his contribution to feminism is often neglected but his work can be regarded as seminal for later theories of gender performativity, namely Butler’s work (Smith, 2009). He explores gender difference in two pieces of work: *Gender Advertisements* (1976b) and *The Arrangements between the Sexes* (1977).

In *Gender Advertisements* Goffman posits that alike animals human behaviours can be regarded as “displays”, an “informing function” that allows every culture to establish the terms of the social contract. In this context he defines gender displays as the “conventionalized portrayals of the culturally established correlates of sex” (Goffman, 1976a: 1). Goffman stresses that these displays are an idea of what men and women are, or should be in a specific culturally and historically bounded context and not displays of a natural essence:

So our concern as students ought not to be in uncovering real, natural expressions, whatever they might be. One should not appeal to the doctrine of natural expression in an attempt to account for natural expression, for that (as is said) would conclude the analysis before it had begun. These acts and appearances are likely to be anything but natural indexical signs, except insofar as they provide indications of the actor’s interest in conducting himself effectively under conditions of being treated in accordance with the doctrine of natural expression. And insofar as natural expressions of gender are – in the sense here employed – natural and expressive, what they naturally express is the capacity and inclination of individuals to portray a version of themselves and their relationships at strategic moments (Goffman, 1976a: 7).

Goffman thus offers the view of gender relations as a social and cultural construction that we learn through the various institutions of socialization and gender as a label for our place in the world:

What the human nature of male and females really consists of, then, is a capacity to learn to provide and to read depictions of masculinity and femininity and a willingness to adhere to a schedule for presenting this pictures (...) One might just as well say there is no gender identity. There is only a schedule for the portrayal of gender (Goffman, 1976a: 8).

To illustrate his theory Goffman analysed printed ad advertisements arguing that “actual gender expressions are artful poses too” (Goffman, 1976a: 84) and thus choreographed ads could be used to exemplify the ideal conceptions of femininity and masculinity. Advertising uses the codes of gender display to communicate quickly and deeply with the potential consumer, and in this way advertising tells us a story about ourselves, about what we consider as normal, as masculine or feminine.

From analyzing the ads, Goffman concluded gender displays have a binary structure, which downplays the similarities between the sexes in favour of differences and also neglects the variability within each sex – there is only a “normal” way to be a woman or a man. The same limitation has been acknowledged in feminist thought by authors such as Teresa de Lauretis:

The first limit of ‘sexual difference(s)’ then, is that it constrains feminist critical thought within the conceptual frame of a universal sex opposition (woman as the difference from man, both universalized, or woman as difference *tout court*, and hence equally universalized), which makes it very difficult, if not impossible, to articulate the differences among women or, perhaps more exactly, the differences *within women*. For example, the differences among women who wear the veil, women who “wear the mask” (in the words of Paul Laurence Dunbar often quoted by black American women writers) and women who “masquerade” (the word is Joan Riviere’s) cannot be understood as sexual differences. From that point of view, they would not be differences at all, and all women would but render either different embodiments of some archetypal essence of woman, or more or less sophisticated impersonations of a metaphysical-discursive femininity (Lauretis, 1987: 2).

Goffman identifies six main forms of gender display: relative size; the feminine touch; function ranking; gender depictions of the family; the ritualization of subordination and licenced withdrawal. Although Goffman presents the displays of femininity, masculinity can be easily apprehended because in a binary system the masculine is defined as the opposite of the feminine. Thus, men contrary to women display power, are always

prepared, are adults and always maintain emotional control, so they are displayed standing up-right, folding their arms, as independent, gazing directly outward or in a relaxed calm, grounded and active in their surroundings (Jhally, 2009).

In such a binary system any deviation from the displays of gender normality poses a challenge, namely the androgynous presentations. Further along we will argue that the mobile phone presents itself as an androgynous technology challenging the system. Being neither masculine, nor feminine the companies that promote mobile phones and mobile services are left with no quick or deep form of communication, they can no longer rely on the codes of normality which makes the technology fragile.

Reevaluating Goffman's theory on light of our current developments we can witness the birth of new codes, namely men as objects of desire and thus being presented in typical feminine displays and women as in control (Jhally, 2009). But in both cases the audience still needs to be reassured that the old codes have not been completely shattered. Thus it is common for women that move in masculine fields to be presented or to present themselves through ritualized codes of femininity and heterosexuality to simultaneously prove that they are in fact real women and that they are not lesbians.

Goffman also suggests that gender displays can be "lifted from their original context and reframed as mockery, teasing and the like" (Smith, 2009: 168-169). Taking ritualized displays out of their context provokes the audiences by causing strangeness, and a sense of not being able to read the situation. An example from the mobile communication industry is the following ad from Motorola (figure 25) where a woman is presented in a non-traditional gender display: in a pose of command, wearing a dark business suit and a tie when at the same time some typical feminine traits are put on display: red lips and fingernails.



Figure 25. Motorola press advertisement.

In *Arrangement between the Sexes*, Goffman introduces the concepts of “gender identity” and “genderisms”. He distinguishes “genderisms” that are individually enacted from practices that are collective and institutionalised constituting a process of “institutional reflexivity”. Thus Goffman reaffirms the social construction of gender differences, “which is then justified or excused in terms of notions of innate biological differences between males and females” (Smith, 2006: 91). Goffman provides five examples of institutional reflexivity: gendered division of labour that encourages couple formation based on mutual dependency; siblings as socialisers; the gendered division of toilet arrangements in public spaces; selective job placement and finally an identification system that marks people according to gender. Goffman concludes his paper about sexual difference by stating the social construction of women’s subordination:

So it is apparent that men and women find themselves quite differently related to public life, its contingencies being very much greater for females than for males, and for reasons that are structurally deep-seated. This difference cuts sharply and cleanly along sex-class lines in spite of the fact that physical potential for assault and for self-defense is by no means so clearly divisible into non-overlapping classes. Plainly, it is for membership sorting that biology provides a neat and tidy device; the contingencies and response that seem so naturally to follow along the same lines are a consequence of social organization (Goffman, 1977: 330).

Similarly Candace West and Don Zimmerman propose gender as a “doing”, a product of our interactions and not a fixed, pre-determined and static component of our identity: “a person’s gender is not simply an aspect of what one is, but, more fundamentally, it is something that one *does*, and does recurrently, in interaction with others” (Candace West & Don H. Zimmerman, 1987: 140). In our daily activities and interactions we rely on the presentation of the self (clothes, tone of voice, posture) to classify those with whom we interact – “It would be a strange world, indeed, if we had constantly to ask to see people’s genitals to make sure they were who they appeared to be!” (Kimmel, 2007: 116) – and we rely on this cues because gender classification is very important to us, like an anchor for social interaction, without it we feel adrift and threaten:

When our gender identities are threatened, we will often retreat to displays of exaggerated masculinity or exaggerated femininity. And when our sense of others’ gender identity is disrupted or dislodged, we can become anxious, even violent (...) Understanding how we do gender then requires that we make visible the performative elements of identity and also the audience for those performances. It also opens up unimaginable possibilities for social change (Kimmel, 2007: 120).

West and Zimmerman acknowledge Goffman’s theory of “gender displays” but argue that it has some limitations, namely the argument of being optional: “While it is possible to contend that gender displays – construed as conventionalized expressions – are optional, it does not seem plausible to say that we have the option of being seen by others as female or male” (1987: 130). They argue that doing gender is unavoidable because it defines our place in the world, the space we are allowed to occupy, the power we have and it is both subject to constant evaluation and self-evaluation. The doing of gender is also a hierarchical arrangement where men dominate and women are dominated. The *doing* is a mechanism of social control and “social change, then, must be pursued both at the institutional and cultural level of sex category and at the

interactional level of gender” (Candace West & Don H. Zimmerman, 1987: 147). The doing can also be dismantled or undone opening up the possibility for change that is sometimes neglected in the reading of West and Zimmerman’s proposal of “doing gender”:

Whereas socialization theories assume that individuals internalize the gendered norms that were salient when they were growing up, the doing gender model assumes that people respond to changing contemporary norms. To change gender relations does not mean to wait for another generation to be socialized differently. Women today who grew up in the 1950s can lead radically different lives than their mothers. Gender construction points to the possibility of revolutionary change within a much shorter time span than implied by socialization approaches (Deutsch, 2007: 107).

The pessimistic view of the concept of doing gender, in what concerns change, stems from some aspects of the theory that seem incompatible with agency or change, namely, that the doing applies whether the act is of conformity or resistance because both type of acts will be judged against a norm and that the system will always lead to inequality. In this scope, some authors like Deutsch propose the “‘undoing of gender’ to refer to social interactions that reduce gender differences” (2007: 122).

The same question concerning agency and possibility for transformation is posed in Butler’s work. Judith Butler introduced the notions of “gender acts” and “performativity”. “Gender acts” are conditioned by History, cultural patterns and stereotypes. “Body becomes its gender through a series of acts which are renewed, revised, and consolidated through time” (Butler, 2004b). Gender is played *In-the-World*³⁹. And History keeps repeating as new technologies come to the world - For decades the industry ignored the telephone as an object of socialization and even came to considered it undesirable, expressing fears of less appropriate contact between men and women of different social classes (S. Fischer, 1992) an the same pattern was again repeated with the introduction of the mobile phone, first targeted for professional uses and men (Lasen, 2005). Because there are punitive consequences for non-conformity to

³⁹ Martin Heidegger (1962) understands Being-in-the-World as a unitary phenomenon. The “Being” and “the World” must be understood together and not as separate identities. Objects and technologies are part of that world to be used and be part of what we are. We become what we are in a background without which we wouldn’t be what we are: “we take up tools as relevant ‘tools’ within a range of cultural practices that *already reveal it as such or such a possibility to act*. (...) As we and our tools interpenetrate each other we become each other’s possibility to be what we are (Introna, 2007: 130). The subject cannot be taken into account without the reference to its world and the things and other people that are part of that world.

cultural and historical patterns - “those who fail to do their gender right are regularly punished” (Butler, 2004b: 157) - we tend to find traditional gendered uses even on new technological artefacts such as the mobile phone.

In much the same way as the “doing of gender” Butler’s theory has been subject to criticism for not taking into account agency and not being compatible with a theory of transformation or resistance. But if we agree that gender is constituted through a repetition of acts it also opens up the possibility of gender transformation through a different series of repetitions. If gender is constituted, it can be constituted in different ways. Gender acts “are not expressive of a reality; they constitute reality through their performance” (Bial, 2004), opening up the possibility of gender transformation, of constituting a different reality. In her most recent work on gender, *Undoing Gender* (2004c), Butler stress the possibility of transformation: “if I have any agency, it is opened up by the fact that I am constituted by a social world I never chose. That my agency is riven with paradox does not mean it is impossible. It means only that paradox is the condition of its possibility” (3).

Throughout her work from *Gender Trouble* to *Undoing Gender* Butler reiterates subversion, namely in the form of parody, but it is clear that that subversion is a painful and difficult process. In this process technology plays an important role. Teresa de Lauretis proposes gender as a product of various social technologies, among which media such as mobile phones (1987). Butler describes technology as “a site of power in which the human is produced and reproduced” (2004c: 12).

The mobile phone has become a cultural artifact. It has symbolic facets in different cultures and groups and it is closely related to aesthetics and fashion. The meaning of the mobile phone is not just utilitarian or instrumental, but also emotional and expressive. The mobile phone is referred by many authors as an affection technology (Lasen, 2004; Plant, 2001b), an object of mediation, demonstration and communication of feelings and emotions.

Being a cultural object, the mobile phone can be analysed as a place of performance, of ritualized codes and as gender technology (Lauretis, 1987). The work of Erving Goffman has thus been used to analyze the context of mobile communications by many authors (Fortunati, 2005b; Hoflich & Hartmann, 2006; Hoflich, Kircher, Linke, & Schlote, 2010; J. E. Katz & Sugiyama, 2006; Rettie, 2005; A. Taylor & Harper, 2001;

Weilenmann, 2003), and specially Rich Ling (Ling, 2002, 2008a, 2008b, 2009). Rich Ling notes that although Goffman had not been a contemporary of the mobile phone, he had looked into the use of the telephone. One of the situations he noted that transfers to gender relations is that the job of answering the phone was an assignment of lower status individuals (Goffman, 1959) and consequently many times that job was ascribed to women. His analysis provided many insights to the ritualized mobile interactions.

The mobile phone, contrary to telephones or other technologies, is considered a personal object, an extension of the body (Lasen, 2002). It also holds an increasing amount of personal information making it extremely private. The fact of the mobile phone being a personal and intimate object is well stated in the research of Mizuko Ito (2003) in which mobile phone users in Japan stated that they would never answer a call on a mobile phone that wasn't theirs or even look at a phone without being invited to do it. Those behaviours were considered socially unacceptable.

The women interviewed were unanimous in considering the mobile phone one of the most private and personal technologies they used:

I know some people that snoop around their partner's messages but I think the mobile phone is very personal and private. I would never touch another person's mobile phone, let alone my boyfriend's. I don't let anyone use mine. I also don't use my son's. It is his space, a personal object. (Cecília, 46 year-old, human resource technician, divorced, mother of a teenager, sole care giver)

This "personalization of networking" as called by Bary Wellman, started with the Internet and has reached its peak with the mobile phone: "The mobile phone could be our personal miniature representative" (J. Katz, 2006: 51). The personal connection, which is greatly physical – makes its users want its mobiles to be a reflection of them, an expression of identity. The mobile phone has become a part of us and many compare its loss to a loss of a limb. We in fact loose our connection to our friends, contents, knowledge, comfort, and security. This emotional connection translates into personalization of the devices through logos, images, ringtones and MMS services, ring-back ringtones and other services.

Technology can be used as self-expression and for men that is much the case. Cars and gadgets in general are a natural extension of men's masculinity, while women don't

seem to identify technology as a way of expressing their identity and resort to other apparatus such as clothes and jewelry: “Women use technology much less as a means of symbolic self-expression. Clothes and cosmetics are the traditional means of expressing femininity and an association with anything technological is definitely unfeminine” (Benston, 1988: 21).

Some studies seem to point to a change in that relation with women giving mobile phones a more expressive and personal use than men (Cardoso, Gomes, et al., 2007; Castells, Fernández-Ardèvol, & Qiu, 2004b; Hans Geser, 2006; Kerckhove, 1997; Skog, 2002): “While men developed a relation eminently instrumental with this technology, women appropriate mobile phones as a fashion item and a way for maintaining their social networks [...]” (Cardoso, Gomes, et al., 2007: 5). In a recent study by Larissa Hjorth (2009b) it was reported that “female respondents tended to be more decisive and opinionated about their selections, often downloading different screensavers and ringtones rather than using the generic” (59).

These practices did come out in the interviews. Women showed a low level of personalization of their mobile phones, with very few reporting having used personalization services or buying personalization contents. One explanation for this absence of personalization may be the job-phone effect, with many women primarily using the mobile phone the company they work for provided them, that inhibits a high level of personalization. These mobile phones sometimes have restricted access to personalization services and are regularly replaced inhibiting women from resorting to personalization services as is the case of Estela, a mature independent:

Yes I do some personalization. I organized the items on the screen. I used some pictures of my mother's backyard and I chose one of the ringtones from the ones that came with the phone. I tried to personalize it with a music that I like but I could not do it. I think we must have some kind of restriction because it is a company phone. If I could I would use that music.
(Estela, 36 year-old, communications manager, divorced, mature independent)

Another finding was that although many of the studies are centred on teenager's personalization practices, in the interviews the group of women that was more enthusiastic about personalization were the empty nesters, which might reinforce the job-phone effect theory. Empty nesters are retired and thus have only personal phones

and have a higher degree of freedom for personalization as explained by Manuela, as empty nester:

I have three mobile phones, one for each provider. I like to play games, take pictures and use the text-messages. I use the pictures that I take to personalize it and I have a ring-back tone service in two of them. I don't have it in all three because it becomes too expensive but I like to know that when people are calling they are going to hear a music that I chose. (Manuela, 56 year-old, pre-retired saleswoman, divorced in a new relationship, empty nester)

Regarding the use of the mobile phone as a fashion accessory, as with other studies (J. E. Katz & Sugiyama, 2006) the women interviewed also showed a “third-person effect”. They describe their choices as mostly instrumental but when asked to match mobile phone models to potential owners they acknowledged that others choose their mobile phones as a status symbol, an accessory or because of its design. Expressive uses were also not accounted for as a reason to acquire a mobile phone or use it, although that facet was once again acknowledged in others as expressed by some of the remarks from the women interviewed regarding the various models (consult Annex D for the list of devices used in the interviews) about which they were asked to give their opinion.

This one [Vodafone 360 – Samsung H1 Black] is for those that are pretentious, that cannot buy an iPhone and thus they buy something that looks like an iPhone. And this one [Vodafone 360 – Samsung M1 - Pink] could belong to a socialite that values her image. (Ana, 56 year-old, assistant, single, mature independent)

The Samsung in Black [Vodafone 360 – Samsung H1 Black] is from someone that buys the mobile phones with reward points because it is not very cute. If I had to choose, from this selection, I would pick the Blackberry [Blackberry Curve – Black] because it seems more functional, and to best fit my needs, as an extension of my office. (Sandra A., 35 year-old, environment engineer, nesting)

Although the level of personalization, either using third-party providers or personal content, is low that does not mean that a process of customization and self-expression is not occurring. Choosing not to customize is also a form of representation and other

more subtle and less visible forms of expression and personalization are in place, such as the expressive use of text-messages or even the way they use it, the length of conversations, the tone employed and other more subtle clues to a person's identity, what Ling and Yttri (Ling, 2004b; Ling & Yttri, 1999; Ling & Yttri, 2002) designate as relational expressions and that are acknowledge by one of the women interviewed:

I think mobile phones reflect the personality of the person who owns it although sometimes they were not the ones to choose it. The ringtones people choose or even the fact that they are constantly on the phone or not reveal a bit of their personality. (Ana A., 34 year-old, web content producer, married, mother of an infant)

The expressive use of the mobile phone is visible in the choices and uses of color, sound and image, either in handset styles or communication styles.

1.1. Color: Much More than Pink

*What are little boys made of?
What are little boys made of?
Frogs and snails
And puppy-dogs' tails,
That's what little boys are made of.*

*What are little girls made of?
What are little girls made of?
Sugar and spice
And all that's nice,
That's what little girls are made of.*

Nineteenth century nursery rhyme

Identity can be expressed through colour and colours have been object of a gendering process with a strong association between pink and femininity. This association is fairly recent and although unclear it could be traced to the nineteenth century (Peril, 2002): “But colour-coding babies pink and blue according to their gender didn’t become widespread until the post-World War II baby boom” (4). But this association is much more than an arbitrary colour attribution, it also conveys a system of values or prescriptions for being a woman, what Lynn Peril calls “pink think”:

Pink think assumes there is a standard of behaviour to which all women, no matter their age, race, or body type, must aspire. “Femininity” is sometimes used as a code word for this mythical standard, which suggests that women and girls are always gentle, soft, delicate, nurturing beings. But pink think is more than a stereotyped vision of girls and women as poor drivers who are afraid of mice and snakes, adore babies and small dogs, talk incessantly on the phone, and are incapable of keeping secrets. Integral to pink think is the belief that one’s success as a woman is grounded in one’s allegiance to such behaviour (Peril, 2002: 7-8).

Mobile companies are increasingly targeting women, especially young women and on trying to appeal to the female consumer everything ends up being pink and soft: “The mobile phone companies seem to design phones to match the traditional female and male cultures” (Skog, 2002). Today, women represent one the largest market opportunities. Women control household spending in most of the consumer product categories, they are a source for innovation and diversity and a growing percentage of the labour force making them a hopeful leverage in recovering from the present economic crisis. Companies are eager to tap into that promising market but in the vast majority of times they adopt a misguided strategy based on traditional gender scripting:

Globally, they control about \$20 trillion in annual consumer spending, and that figure could climb as high as \$28 trillion in the next five years. Their \$13 trillion in total yearly earnings could reach \$18 trillion in the same period. In aggregate, women represent a growth market bigger than China and India combined—more than twice as big, in fact. Given those numbers, it would be foolish to ignore or underestimate the female consumer. And yet many companies do just that, even ones that are confident they have a winning strategy when it comes to women (Silverstein & Sayre, 2009a).

Without a deep understanding of the female consumer, companies resort to pre conceived ideas about femininity and female interests. They treat the female consumer as a homogenous segment without setting a differentiating strategy. They approach women with a condescending attitude as if all of them had little or no interest in technology or any technological competency. It is not enough to turn it pink although some marketing managers think so (figure 26). In the release of the Sony© PSP Pink Edition, in 2006, the brand manager stated that it was a way for Sony to empower girls and women to play videogames: “The Pink PSP launch is much more than just launching a new color. It is about a confident and powerful attitude for young

women”⁴⁰.



Figure 26. Playstation[®] portable pink edition press ad.

As a result women generally feel patronized and that their real needs are not met. In fact in a recent consumer survey from Saatchi & Saatchi, only 9% of respondents think it is important that their gadgets look feminine (Parmar, 2007a). The majority of women interviewed across all life stages had a similar response to pink mobile phones, although the refusal is especially stronger amongst the first life stages where women are looking for social and professional affirmation:

I think the black mobile phone [Vodafone 360 – Samsung H1 - Black] gives you a more serious look and the pink one [Vodafone 360 – Samsung M1 - Pink] a less serious one. I've had a pink mobile phone but it was one that I knew would not last me long and that in the day that I would have a job and

⁴⁰ Source: <http://www.gamingbits.com/sony-playstation-portable-psp-news-bits/sony-psp-goes-pink-in-europe-limited-ed-starting-october-27/>

responsibilities I would not use a pink mobile phone, even if I could choose to have one. (Constança, 23 year-old, student, single, dependent)

I personally would never want a mobile phone because it draws too much attention. The mobile phone is something practical that should not stand out. I like black or grey models and what I value most is being light. (Patrícia, 33 year-old, economist, nesting)

I would choose a neutral color. It is what I like. I think that maybe pink is the anti technology color. When I see something in pink it reminds me of toys. It looks like the Barbie phone. I know that it must be a misconception and certainly many models are exactly the same except for the color but it is enough to change from pink to metal grey to immediately look something more serious. (Estela, 36 year-old, communications manager, divorced, mature independent)

Women don't want something just because it looks feminine but they don't want the same product sold to men either. They want a functional interface, less unnecessary features and more substance than men (Parmar, 2007a). Technology has to play a clear role in women's lives. Some industries such as the auto and health insurance have learned to target women according to their real needs and based on their real consumption trends and not stereotyped notions of what women want. Companies like Nike are good examples by providing products that were designed on women's features and not on the notion that women are smaller men or that have fewer abilities (Silverstein & Sayre, 2009b). Mobile communication companies have a long road ahead in understanding women and differences between women.

The "gender script"⁴¹ of turning it pink to appeal to women has become second nature as a connection between pink and womanliness (Peril, 2002), a social norm to which we

⁴¹ The concept of a technology having a script stems from a semiotic analysis of the users, "as imagined by the designers of the technology" (Rommes, Oost, & Oudshoorn, 1999: 478). Those scripts become "gender scripts" when gendered characteristics or representations are in place. The concept of gender script has proven to be a useful tool in analyzing the under-representation of women as technological

conform to avoid punishment and being shamed. But we could also say that pink wrapping persists because women keep buying pink wrapped products, namely to perform themselves in an otherwise grey masculine context. When choosing pink mobile phones to highlight their presence, of embodying the nature of their positions, as a form of subversion women are also “articulating within strictly defined boundaries” (Puwar, 2004: 151). They are expressing their right to mobile technology but they are stating their gender through gender stereotypes because being too much subversive would mean not being accepted. There is a pressure on women to highlight their difference from men through exaggerated forms of femininity, as a masque to protect them from retaliation or to hide their intentions, their real power (Puwar, 2004; Riviere, 1929). The other option is to mimic the hegemonic culture of a male dominated black, grey and silver technological aesthetics. It becomes a trap for women that risk not being able to alter the masculine norm.

1.2. Mobile Soundscapes

Contemporary consumer culture is a sound consuming culture in which daily life is increasingly mediated by a multitude of mechanically reproduced sounds.

Michael Bull (2005: 169)

Sound is a way to create our own space or to experience space according to our desires and aesthetic interests. Today mobile phones are commonly used as conveyers of those sounds by integrating MP3 players and radio receivers. They also have their own music – ringtones⁴² that have evolved dramatically over the last few years with the increased

imagined users (Akrich, 1992; Oudshoorn, 2003; Oudshoorn & Pinch, 2003; Oudshoorn, et al., 2002). As developers and innovators embed technology with their preferences and because women do not usually take part in the development process “technological objects become attuned to the interests and skills of young, middle-class men, rather than women or other groups underrepresented in the world of technology” (Rommes, et al., 1999: 479).

⁴² Ringtones can be personalized in multiple ways that range in the skills necessary to do it. In a free of charge use, they can be created using specific applications; they can be downloaded or exchanged through bluetooth. As a paid service, many content provider companies and the mobile providers themselves sell ringtones.

sophistication of devices and have gone from monophonic to hi-fi. Mobile phones also convey the sound of people's voices, and thus an intimate connection to those people. The co-existence of all these different sounds in one device translates the different affordances⁴³ of mobile sound: intimacy and proximity through people's voices, expression and the creation of a personal space through ringtones and ringbacktones and privacy through the possibility of listening to our music or favourite radio show, a practice of cocooning to "shelter from engagement with the physical location and co-present others – a private territory" (Mizuko Ito, Okabe, & Anderson, 2008).

Is the mobile phone itself which has really changed the sonic world. The warbles, beeps and tunes of the mobile have become so common that their calls have begun to constitute a new kind of electronic bird song, changing the soundtrack of the cities and altering the background noise in regions as varied as the forests of Finland and the deserts of Dubai (Plant, 2001a: 30).

⁴³ The concept of affordance is currently used in several fields but it originates in James Jerome Gibson work on ecological psychology and his seminal article *The Theory of Affordances* (1977) and his following book *The Ecological Approach to Visual Perception* (1979) where he defined affordance as any actionable property between the world and an actor (a person or an animal). The concept was then used by Donald Norman (1988) as "perceived affordances" in the context of human-machine interaction and interaction design to refer to the possibilities of action that are perceived by an actor in the system and that involves not only physical capabilities but also values, beliefs and past experiences. Those set of characteristics are brought into the evaluation of new affordances. The emphasis on perceived comes from the perspective taken – the one of the designer. What is important for the designer is what the user perceives or not perceives and not the real possibilities. Norman also makes the distinction between affordances and conventions: "Affordances reflect the possible relationships among actors and objects: they are properties of the world. Conventions, on the other hand, are arbitrary, artificial and learned. Once learned, they help us master the intricacies of daily life, whether they be conventions for courtesy, for writing style, or for operating a word processor. Designers can invent new real and perceived affordances, but they cannot so readily change established social conventions" (Norman, 1999). Both Gibson's and Norman's conceptions of affordances have been subject to critique from the perspective of activity theory for not taking into account the development of an artifact and for taking user and object as separate fields, instead "artifacts, technologies, and their knowledgeable users are seen in their actual interdependency and co-existence in processes of activity, ultimately as abstract moments in societal forms of praxis" (Baerentsen & Trettvik, 2002: 59). In the context of Computer-Supported Collaborative Work (CSCW) the concept also evolved to incorporate social dimensions. Bradner defines social affordance as "the relationship between the properties of an object and the social characteristics of a given group that enable particular kinds of interaction among members of that group" (2001: 132). Bradner also distinguishes between compelling and supporting or enabling. Social affordances compel certain interactions, so the different technologies can enable or support the same activity but each one will compel specific affordances, "for example, in a comparison of calling people and texting people, both technologies *support* and *enable* communication, but texting might *afford* "keeping in touch" better than calling by not disturbing the other party because it is an unobtrusive communication mode." (Sun, 2004: 54). Bradner's concept of social affordance is constrained by the fact that it only concerns small groups and not interactions at a more wide level. From social constructivism Hutchby (2001, 2003) provides the notion of "communicative affordances" by exploring technology-mediated conversations with the methodology of conversation analysis and it provides a middle-ground theory between radical constructivism and technological determinism. Finally Baerentsen and Trettvik (2002) provide a cultural-historical angle, asserting that "[a]ffordances are not properties of objects in isolation, but of objects related to subjects in (possible) activities" (2002: 59). The concept of affordance used throughout the thesis is best aligned with Bradner's and Baerentsen and Trettvik's concepts of affordance.

Katz suggests that “there is song ” (2006: 56) for the social dynamic of interaction with mobile phones. The tone and loudness are interpreted as signals of how others should behave. Robert Hopper (1981) has suggested that what defines the mobile phone conversation is an asymmetrical power relation between the caller and the answerer that he designates as “caller hegemony”. The one who calls is the one that determines the beginning of the interaction and although women reported several avoidance techniques like turning the phone off or setting it to silence that does not avoid recrimination from those that cannot get through to them.

I am not dependent on the mobile phone but people around me are and that makes a difference. If one day I forget my mobile phone at home it would not matter for me but for the other the fact that I am not on my mobile is a drama. (Ana A., 34 year-old, web content producer, married, mother of an infant)

I think I would even like to be without my mobile. Sometimes is such a huge obligation. People get mad when we don't answer or we don't reply. And I want to avoid that conflict. I feel the need to turn it off so that it does not interfere with my life but I don't know if I could do it. I feel pressure not to do it. People demand your constant availability. Even me: if my boyfriend goes in a car travel and if I call and he does not answer I go crazy. Sometimes when it rings I stand there looking at it and I don't feel like answering but I know I cannot do it. (Constança, 23 year-old, student, single, dependent)

Women seem especially sensitive to this caller hegemony. This was much the case for the landline telephone where women were usually the ones that had the responsibility to answer the house phone, almost as an extension of their roles as switchboard operators or secretaries. With the mobile phone, although being a personal objects that they might choose or not to answer, they feel an increased responsibility for being reachable because of their responsibilities as coordinators for home and family life.

Until recently I did not feel that I was dependent on the mobile phone but now I am. I need to be constantly connected, especially with the kids. The first kid was when things began to change (Margarida, 33 year-old, engineer, married, mother of two infants)

Sometimes when those techniques of avoidance such as screening your calls are employed they generate anxiety and guilt about being off the grid, the constant feeling that something might happen, that someone might need them and that they were not available.

Ringtones can also be regarded as a “performative manifestation and display of (sub) cultural identities in the public sphere” (Elferen & Vries, 2007). Ringtones are “outer performances”, that is performances for those that geographically surround the caller and the answerer. They are what Sadie Plant calls “stage-phoning” (2001a), a unique opportunity to put something of the answerer on display”, conveying cultural meanings:

Musical ringtones are then a resource for distinguishing oneself by making one's tastes visible in the public sphere, usually in relation with some form of collective and recognizable identity claim, either with respect to an actual peer group (friends) or an imaginary one (everyone who likes a particular type of music) (Licoppe, 2008: 146).

With the increasing sophistication of mobile phones the display of caller and answerer can also rely in more than sound. Image, through the proliferation of mobile camera phones and increased screen displays, are becoming an important dimension of mobile communications.

1.3. Image: Pictures of Home

To each their own bubble

Jean Baudrillard (1988: 39)

Mobile camera phones have been hugely successful⁴⁴. The mobile camera feature is a case where the mobile phone shows the best of its Swiss-army knife nature allowing users to have a ready at hand option for taking pictures. It is a non-intrusive and discrete functionality that allows for impulse in picture practice. If the mobile phone surely owes its massive adoption to its untethered nature, satisfying on of the most obvious human needs – to communicate on the move, its incorporation of the camera, seems only natural at the light of the mobile nature of photography itself. Media archaeologist Errki Huhtamo (2004) has claimed that the first mobile medium was amateur photography. Now mobile phones provide the amateur photographer with the possibility to capture the mundane, the everyday life through a device that is always at hand:

Mobile phones offer a dynamic method of carrying and accessing our personal histories and promoting the visiting and revisiting of treasured memories in the form of images, videos, and SMS messages. Like an old friend, the mobile phone is always with us, ever ready to capture our future memories, providing an immediate sense of belonging, comfort, and connection to our past (Keep, 2009: 70).

Compared to other photographic devices, mobile camera phones provide new affordances that are intertwined with the mobile phone: “Changes to the ways in which

⁴⁴ Mobile camera phones were recently introduced but soon became very popular, especially in Asia and countries like Japan. The first mobile phone equipped with a camera was manufactured by Kyocera and introduced in 1999. Nokia launched its first camera phone, the 7650, in 2001 and in 2004 “became the largest digital camera manufacturer in the world, selling approximately 60-70 million camera phones (Koskinen, 2007: 3). Besides picture taking, the visual dimension of mobile phones also translates into video calls, mobile Internet and television. Mobile Internet is also becoming increasingly popular in the last few years. According to Anacom at the end of the 1st trimester of 2010 there were 2,15 million users that used the mobile broadband. This number accounts for mobile access but not necessarily mobile phone access. Mobile television it is still in its infancy facing uncertainty regarding business models and user acceptance. As for video calls they seem condemned to science fiction movies. They are the eternal postponed future of mobile communication (Ganito, 2010a). Another intersection of image and mobile devices is location, through GPS services which have also been very popular and that translate into other applications such as games that use location or mobile commerce. Because other uses than picture taking are still marginal the analysis will be focused on how mobile camera phones are being domesticated by women.

we capture, store and disseminate personal photographs through the use of devices like camera phones will have important repercussions for how we understand who we are and how we remember our past” (Gye, 2007: 279). One of the most significant of those affordances is the valorization of daily life. Being a mundane technology, the mobile phone enables its user to register the daily activities and happenings. The picture is no longer only for the exceptional but also for the mundane (Goggin, 2006). Mobile pictures also play an important role as objects of personalization that transform the device into a conveyor of identity and self-expression and a source of reassurance. These pictures become “a key to our emotional understanding of ourselves and the world” (Gibbons, 2007: 4).

The proliferation of mobile camera phones brought with it an enhanced fragmentation that works in a double logic. In a first instance it multiplies the options for capturing pictures and in a second instance it also fragments the archiving practices.

Throughout the past 150 years, we have had a rapidly increasing number of means by which we can document and record every facet of life. The means of aural and visual capture have increased exponentially since the invention of photography in the 19th century (...) Where once an individual or family’s memories were restricted to limited numbers of photographs and documents now we can acquire vast repositories of mediated memories to send into the future (Gye, 2004).

Although the mobile phone entails a huge potential for collective sharing and public display, what is in fact happening is that the story stops being shared, public and on display to become fragmented, individual and even more private than before (Gye, 2007; Okabe & Ito, 2006). Due to its business model the mobile phone also adds some financial constraints to sharing. After taking a picture the user is faced with two options: do download the pictures to the computer or spend some money on a MMS⁴⁵ or in Internet use to upload it to a social networking site or send it through an e-mail account. The story stops being shared, public and on display to become fragmented, individual and private (Gye, 2007; Okabe & Ito, 2006):

⁴⁵ MMS is an acronym for Multimedia Messaging Service and it is a standard wireless protocol that allows users to send and receive messages with multimedia content: sound, images, text, and video. MMS has not been so popular as text messaging probably due to financial cost and increased complexity. The rapid increase in social networking sites and the simultaneous increase in web-enabled mobile phones allow users to share their contents at a fraction of the cost and to a larger group of people.

The social function of the camera phone differs from the social function of the camera in some important ways. In comparison to the traditional camera, most of the images taken by camera phone are short-lived and ephemeral. The camera phone is a more ubiquitous and lightweight presence, and is used for more personal, less objectified viewpoint and sharing among intimates (...) The camera phone tends to be used more frequently as a kind of archive of a personal trajectory or viewpoint on the world, a collection of fragments of everyday life (Okabe & Ito, 2006).

Mobile phones are also changing the practice of creating a family photo album. The family album is a frame that stresses “chronology, continuity, and repetition within and across generations (...) predictable framings and messages” (Hirsch, 1997: 214) . This frame has been disturbed by the introduction of digital photos that provided ground for the mundane and now with mobile phones that register the unexpected, the unpredictable, the unplanned, the true Kodak moment has become a Nokia moment. Pictures are set into a different frame, one of impulse, fragmentation and fragility.

According to Bourdieu (1991) the viewing of the album is a tribal ritual with a magic ceremony. Sontag also defines the taking of pictures as “rite of family life” (1977). But mobile phones are changing the ritual and arguably removing some of the magic as the flipping through the pages of a photo album is not quite the same as clicking the mouse to view a pictures on a computer screen or flipping through picture galleries on someone else’s mobile phone. Even the physical act became harder, as most people regard their mobile has highly private devices is hard to pass them around for picture sharing:

Mobile camera phones suffer from similar problems to digital cameras – the very immaterial nature of the technology works against our usual ways of working with personal photographs (...) Creating the same kinds of interaction with digital images on mobile devices is made even more difficult by their location in a highly personalizes device. While we may show photos to people on our mobile devices, we are usually reluctant to hand the device over to someone who may not understand the interface and so we keep them at a distance from the images under examination (Gye, 2007).

These social uses are also gendered. And this gendering process began since its inception when Kodak in the early 20th century advertised that “anyone could be a photographer – even women and children” (Gye, 2005) as seen in the example of figure 3. Women were pulled to the role of guardians of family pictures. Compiling and sharing a photo album soon became a feminine activity, a tradition passed on from mother to daughter. The following Kodak advertisement (figure 27) for a book on how

to take family pictures is an example of Kodak's strategy of targeting women, that will be a constant in Kodak's communication (figure 28)



Figure 27. Kodak ad, 1910.

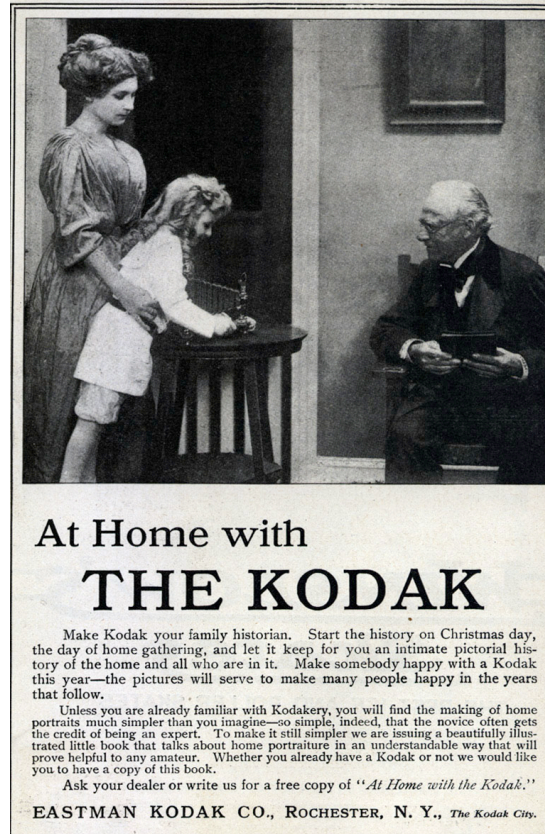


Figure 28. Kodak ad, 1924.



Figure 29. Example of kodak's 1940's-50's magazine ads.



Figure 30. Example of kodak's 1960's magazine ads.

These Kodak ads are a sharp contrast to the gendering of mobile camera phone advertising where women are not targeted as users of mobile cameras. Figure 31 provides an example of how mobile phone providers handle the feminine market.



Figure 31. Sony ericsson mobile camera phone advertisement.

After voice and texting, cameras were the most interesting feature to have on mobile phones, for the women interviewed⁴⁶. The reasons differed across life stages. On the first life stages women valued the camera to keep up with their social life. Mobile phone cameras were useful for their last minute social programs.

When women become mothers, camera phones become important for family photos and this is extended to empty nesters when they take care of grandchildren. As for the photo album, “the photographic album and the mother are often linked” (Langford, 2001: 27) and that came across in the interviews:

⁴⁶ The national survey of mobile phone usage in Portugal points in the same direction. Picture taking comes in third place in the rank of most used features of the mobile phone with 37.1% of Portuguese using cameras on their mobile phones (Araújo, Cardoso, & Espanha, 2009). Camera phone usage is only surpassed by SMS and voice calls. In this raking we also have to consider that an unknown percentage of users do not have a camera in their mobile so this percentage could even have a stronger significance.

Now that I am a mother I use the MMS a lot. I also used it while I was pregnant to show my growing belly. The mobile phone is only when I want to send the pictures. I use the digital camera to register programmed moments but even then I take a picture with the mobile phone to send and then I will use the digital camera. But I do not organize the pictures in the mobile phone. (Carla D., mother)

Even when men were the ones taking the pictures, women were the ones responsible for telling the story, for keeping record, for organizing a coherent, chronological account of family history.

I take a lot of pictures. In the past I used to make albums, before I had a digital camera. Now I only do it for special reasons – a Christmas gift or anniversaries. When I lived with my parents I was the one that organized the albums. Before me, my mother took the pictures and organized them but only when I was little. Sergio [husband] loves to take pictures but I never saw him printing them or organizing them. All the picture frames we have it was me that chose them (Sandra, nester)

With pictures being archived in computers, pen drives, hard disks, women lost their social role as picture organizers and as story tellers, as performers of an oral history: “the showing and telling of a album is a performance (...) Viewing the album in company must be considered the normal spectatorial experience” (Langford, 2001: 5).

I keep the pictures in the mobile phone and in the computer. I usually see them in the computer but it is not usual to show them to other people (Ana C. mother).

Mobile phones were also either a last resort when no better solution was available, for unpredictable events or mundane and ordinary situations, a personal diary of everyday life.

I use the mobile phone for spontaneous programs, when I do not have the camera with me. I usually prefer the camera but when I do not have it I resort to the mobile phone (Carla A., mature independent).

Because the price of MMS is perceived as high and most of the women had low Internet usage, picture sharing was very restricted. Most sharing would be done in co-presence,

much like wallet pictures showing, or as a way of remembrance. Women also reported that they had no intention or did not know how to download their pictures from the mobile phone and rarely or never printed them out, reinforcing the lost practice of compiling a photo album that started with digital photography:

In the previous phone I had lovely pictures of my grandson, one in particular of him crying in his first day of school. I kept asking my children to copy it to the computer but they never did it and one day the mobile phone fell and a car ran over it and I lost all my photos (Fátima 2, 56 year-old, retired insurance professional, married, and grandmother of one, empty-nester).

Mobile pictures are thus transversally contingent and temporary (Reading, 2008) Nevertheless the mobile camera phones are enabling women's self expression like the case of young South Korean women described by Lee (2005):

These women are not the mere owners of camera phones, but performers who create various cultural meanings. They develop a more intimate relationship with technology, challenge the convention of gaze, give meaning to what is taken, and circulate their own expressions (D. Lee: 12).

These women appropriate the camera phone for cultural production, despite the prevalence of advertising that shows men snapping pictures of women. Through features like cameras Portuguese women are also building a more intimate relationship with technology, they are learning to accept new media, they are becoming producers, and they are performing new cultural meanings.

1.4. Conclusion

Mobile phones are "machines that become us" (J. E. Katz, 2007), machines or devices that represent us and present us to others. Colour, sound and image are important aspects of performance as communication (Caron & Caronia, 2007) and performance as construction of meaning. Thus, mobile acts are also moving acts, that is, they change according to the cultural context of appropriation. The mobile phone provides a new frame for the performance to occur and that is a frame of privatization and

personalization. The mobile phone has become one of the most private things we own and we feel entitled to make it our own and express our identity in that process.

Although there is a notion that women resort to personalization more than men, this did not seem to be a common practice among the women interviewed, namely due to the job-phone effect. With the high level of women working it is common for them to be entitled to a company phone. Not being the actual owner of the phone inhibits women from a higher degree of personalization. But that does not mean that teenagers are the only ones that resort to personalization to present their identity, empty nesters were also highly enthusiastic about personalization.

The choice of colour is one of the first examples of the moving nature of mobile acts. Choosing pink phones can be an option to conform to the masculine norm that states that “pink is for women” and abiding “gender scripts”; a form of using femininity as a masque against retaliation or of disguising power uses of technology that would confront men; or a self-expression in an otherwise black and grey stage.

As with colour, other personalization contents such as music or images are also subject to gender scripting with brands and companies missing a huge potential for marketing and selling personalization contents to women - contents that do not abide the stereotype that women are only interested in “cute” pictures and “soft” music.

Mobile camera phones have also provided new affordances. Although we have argued that the mobile camera phone was another step in the direction towards the end of the traditional role for women to keep a family album and its ritual of archiving and presenting an individual and collective memory, that does not mean that that we approach it as an erosion of tradition or of a cohesive ritual, rather the mobile phone can offer another site to “capture, share and archive the digital representations of experiences (...) new modes of engagement with cultural traditional and ritual pertaining to the act of remembrance” (Keep, 2009: 61). But the promises of unbound sharing have yet to be fulfilled. Contrary to some beliefs (Keep, 2009) remembrance is still bound by constraints of time, place and gender.

2. Gender, Space, Place and Control

*Geography...has meant different things
to different people at different times and
in different places.*

(Livingstone, 1992: 7)

The centrality that space has gained in social theory led to a so called “spatial turn” in many disciplines from sociology to cultural studies. This has led to a new understanding of space no longer as a neutral set of coordinates but as a product of social and cultural relations that change over time. As for the distinction between place and space sometimes they are used as synonyms others they are object of great dispute and “they remain relatively diffuse, ill-defined and inchoate concepts” (Hubbard, Kitchin, & Valentine, 2004: 6). Postmodern and poststructuralist theories have emphasised the cultural construction of both space and place. A growing debate is also that of the impact of technology in that construction of space and place: Cairncross (1997) talks about the “death of distance”, Giddens (1990) discusses the increase in “time-space distancing”.

The mobile phone have led to what Hayles (1999) characterizes as “denaturalization” of space. Mobile technologies annul natural characteristics by allowing a unique, individual experience of a specific space:

The pre-electronic locality was characterized by its physical and experiential boundedness. Situations were defined by where and when they took place and by who was physically present - as well as by where and when they were not taking place and by who was not physically at particular events. Now such boundedness requires some effort: Turn off the mobile phones, PDAs, and laptops; banish radio and television. Schools and churches continue this struggle to make "a space apart" (Meyrowitz, 2005: 28).

McLuhan (2002-1964), regarding the telephone had already stated that it was “an irresistible intruder in time and space” and described the change in human perception introduced by electricity:

Electronic speed tends to abolish time and space from human perception. There is no distance between the effects of an event over another. The electric extension of the nervous system creates a unified field of organic interrelated structures to which we call Information Age (McLuhan, 2002-1964).

The effects of digital communication networks amplified this phenomenon. In the case of the mobile telephone its ring seems to supersede any other activity, people feel compelled to act on it, regardless of their activity or surrounding. A behaviour that McLuhan had noted regarding the telephone (McLuhan, 1964).

Communication technologies change space and time frontiers of human interaction, demanding new ways of organizing relations (Carey, 1992a). According to Manuel Castells, with the advent of digital communication and of the Internet, the frontiers and geographic landmarks transform themselves into “spaces of flows” and time seems to disappear:

There is a new spatial form characteristic of social practices that dominate and shape the network society: the space of flows. The space of flows is the material organization of time-sharing social practices that work through flows. By flows I understand purposeful, repetitive, programmable sequences of exchange and interaction between physically disjointed positions held by social actors in the economic, political, and symbolic structures of society. Dominant social practices are those, which are embedded, in dominant social structures. By dominant structures I understand those arrangements of organizations and institutions whose internal logic plays a strategic role in shaping social practices and social consciousness for society at large (Castells, 1996: 412).

But this space of flows is not according to Castells placeless. Places, defined as a “locale whose form, function and meaning are self-contained within the boundaries of physical contiguity” (1996: 423), still play an important role in people’s lives. Location is a form of mental positioning and thus the usual question we all make when using our mobile phones – “Where are you?”, Ferraris (2005) observes how we changed from asking “Who is it?” when using the telephone to “Where are you?” with the use of the mobile because we have lost our geographical reference to a house, “we no longer ring a location and attempt to reach a person, but ring a person and attempt to locate them” (Light, 2009). We also say: “I will be on my mobile phone”, that is the place where we

can be found, suggesting what Sherry Turkle describes as a “tethered self” (2008). The importance of location is also visible in the success of location based services (LBS)⁴⁷.

Castells also proposes that “space organizes time in the network society” (1996: 376) in the measure that time is specific of a certain context. The hierarchy of spaces is no longer subdued to geography but to the variable geometry of the information flows:

The dominant trend in our society displays the historical revenge of space, structuring temporality in different, even contradictory logics according to spatial dynamics. The space of flows dissolves time by disordering the sequence of events and making them simultaneous, thus installing society in eternal ephemerality. The multiple space of places, scattered, fragmented, and disconnected, displays diverse temporalities, from the most primitive domination of natural rhythms to the strictest tyranny of clock time. Selected functions and individuals transcend time, while downgraded activities and subordinate people endure life as time goes by (Castells, 1996: 467).

This is even more of a reality with the mobile phone. The mobile phone has accentuated the characteristics of the “Network Society”, as a society of variable centres and margins. With the mobile phone we cease to have activities structured according to place to having activities that define place. Trains and aeroplanes become offices, a restaurant a game arcade, the bus can now be an office and the office a playground - uses surpass context. The mobile phone is blurring several frontiers: between leisure and work, but also between private and public life and private and public space.

We use technologies to flee time constraints and to free ourselves from physical contexts. With mobile technologies we rearrange public space and build barriers where they do not physically exist but we also tear them down. The hybridization of public and private spaces is one of the main characteristics of the mobile communication system (Feldmann, 2005; Ling, 1999). The mobile phone brought the end of the physical barriers between space/time for work and space/time for leisure, private affairs and family. We have ceased to organize our life in space compartments.

The mobile phone enables an easier organization of time and space (Lasen, 2002), especially with the integration of computing that allows us to be constantly connected to the Internet. The mobile phone has become our permanent connection to information and our social network. It is constantly on and with us, becoming a kind of place where

⁴⁷ Location based services are technical services that can pinpoint locations and report those locations in real-time.

we can be found (Lasen, 2002) and our mobile phone number a “fixed address” (Arnold, 2003).

We carry the mobile phone with us everywhere we go and we now live in a culture of “perpetual contact” (J. Katz, 2005) where every corner of our lives has been invaded by this small object: our bedrooms, our workplaces, and even our churches and classrooms.

We also have to take into account the bodily display of mobile phones because they are “located with our body” (Ilharco, 2007b). Thus mobile phones become fashion statements that convey a visual sense of identity. And mobile conversations become social performances because, contrary to landline telephones, there is an audience (Caron & Caronia, 2007): A corollary aspect of public phone performance is that sometimes the dynamics of mobile phone use is largely (or even exclusively) for those who are present (60-61).

The public performance of mobile communications is no longer contained as happened with the telephone that had a phone booth as container. The mobile phone is an extension of its user, but also a virtual presence, an extension of our social network. We “do not take up tools for their own sake. Rather to do something as part of being somebody in particular” (Introna, 2007: 130).

Katz (2006) makes an analogy of the physical performance of public communication to dance because of its implications in the way others in the environment behave: “In part, the use of mobile phone in public by one party often requires that the user’s co-present partner adjust themselves in space and pace (...) they must engage in a bit of a choreography” (58). The author grounds this analogy to choreography in Edward’s Hall concept of being “in sync”. In the new mobile context, people “need to move in sync”.

The mobile phone is also used to obtain a sense of security; it provides freedom of movement because we always feel supported: “mobile communication is not about mobility but about autonomy. The possibility to reach any one at any time anywhere provides this safe autonomy pattern that characterizes the daily life of millions” (Castells, 2008: 448).

This autonomy provided by mobility, this ability to move around across different spaces is closely related to power relationships (T. Cresswell, 2006; Urry, 2000, 2007). Different groups have very different experiences of mobility that are regulated by relationships of power regarding space: “some are more in charge of it than others;

some initiate flows and movements; some are more on the receiving end of it than others; some are effectively imprisoned by it” (1993: 63).

2.1. Women on the Move - Gendering Mobile Space

*Gender shapes access to resources,
notably time, money, skills and technology.
Access to each of these resources will influence
the experience and social meaning of mobility.*

Law, R., 1999

Spaces and places are very much part of gendered identities and they did not escape the binary approach: “The mapping of a place or location onto gender identities has been a key part of the establishment and maintenance of women's position and is reflected in both the materiality and the symbolic representation of women's lives” (McDowell, 2003: 13).

In the scope of the gendered binary distinctions about place, the place of men was in the public arena, outside the home, in the streets and workplaces, out in the public, being involved in production. A woman's place was the private sphere, the home, the family and being involved in consumption. This separation of spheres and places has been eroding and mobile technologies stroke another blow:

Victorians emphasized how the public, male realm of rational accomplishments and brutal competitions was very different from the private, female sphere of home, intuition, and emotion. Now, electronic media pull the public realm into the home, and push intimate topics, images, and sounds into the public sphere (Meyrowitz, 2005: 29).

Nevertheless that does not mean that location lost its relevance from a feminist standpoint. On the contrary authors such as Rosi Braidotti (1994) and Donna Haraway (1988) call the attention for the significance of context and “situated knowledges”. Some of the most significant places at the intersection of mobile technology, space and gender will now be addressed: homes, the streets, the offices, communities and neighbourhoods.

The mobile phone enables women to keep in touch despite their space constraints. It becomes an especially useful tool when they see their mobility reduced in certain stages of their lives such as when they have small children or become older.

At this stage in my life is when I value it the most to be available and to be in touch with people and also to do my things with grandchildren. I don't drive so I am always dependent on my husband to pick me up and the mobile is helpful to coordinate things. (Maria, 60 year-old, married empty-nester)

I think I use the mobile phone now that I am home. I use it to send pictures of my baby and I am always thinking that something might happen. Now leaving home with my baby without the mobile phone could be complicated. I no longer think only on my safety. Nothing can happen because my baby is there. I feel more reassured when I have it, especially now that I am home and I have a baby. (Carla, 34 year-old, unemployed marketing manager, mother of a small baby)

It allows them to extend to outer spaces a function that they valued so much in the landline telephone – keeping in touch with those that are emotionally important, it is what Klára Sándor calls “mental safety in your pocket” (Sándor, 2005b).

It would be extremely complicated to be without the mobile phone. I would be a nervous wreck. If I forget my mobile phone it seems that I am lost and that I need exactly all that I have on my mobile phone. I did not feel this before but now it seems that the mobile phone is part of us. I rarely forget it at home because the first thing I do in the morning is placing it in my handbag. I feel much more reassured when I have it and I now it is turned on so I do not switch it off when I go to bed. Someone might need my help. (Fernanda F., 52 year-old, married, computer manager, empty nester)

But some contexts remain resistant to change. Some places are still very hostile to women and even in western 21st century cities such as Lisbon, women feel out of place

and that might range from social discomfort such as the one felt in restaurants when they have to have dinner alone to feeling out of touch with a male working culture:

A sobering counter to the emphasis on displacement and mobility in recent theoretical work as well as in empirical studies lies in realizing that most women in the world remain trapped or fixed in place. Their everyday lives and social relations are confined within, often tight, spatial boundaries, constructed through power relations and material inequalities. The opportunities but also the constraints of the locality continue to structure many women's, indeed most people's, lives, when the material costs of overcoming the friction of distance are beyond their means. However, the new technologies that compress distance and reduce friction for capitalist enterprises also open up increasing possibilities for interaction between imagined communities - communities of interest (McDowell, 2003: 28).

2.1.1. Embodiment and Disembodiment

All experience is local. Everything we hear, touch, smell, and tastes experienced through our bodies. And unless one believes in out-of-body experiences, one accepts that we and our bodies are permanently fused. We are always in place, and place is always with us.

Joshua Meyrowitz (2005: 21)

The body is the “place of the individual” (McDowell, 1999) and in the search for individualization it has been an important site for feminist struggles⁴⁸ (Pilcher & Whelehan, 2004). Women have been subject to such space constraints that for many sites they are described as “bodies out of place” (Puwar, 2004):

Social spaces are not blank and open for any body to occupy. There is a connection between bodies and space, which is built, repeated and contested over time. While all can, in theory, enter, it is certain types of bodies that are tacitly designated as being the 'natural' occupants of specific positions. Some bodies are deemed as having the right to belong, while others are marked out as trespassers, who are, in accordance with how both spaces and bodies are imagined (politically, historically and conceptually), circumscribed as being 'out of place'. Not being the somatic

⁴⁸ There is an extensive feminist body of work on the body. Although the thesis is not specifically concerned with the meaning of the body for feminist thinking some references should be taken into account regarding the feminist approaches that range from the defense of the necessity to annul natural body characteristics to the praise of those characteristics and the specificities of women's bodies. Jane Pilcher (2004) offers a short but clear overview of three different perspectives on the body: “body as nature”, “body as socially constructed” and “embodiment”. The latter being the perspective used in the thesis and where the body is regarded simultaneously as natural and culturally constructed. Key feminist thinkers of the embodiment perspective are Elizabeth Grosz (1994, 1995) that offers a theory of “corporate feminism” and Anne Balsamo (1996) that proposes a view on technological embodiment.

norm, they are space invaders. The coupling of particular spaces with specific types of bodies is no doubt subject to change; this usually, however, is not without consequence as it often breaks with how bodies have been placed (Puwar, 2004: 8).

Pierre Bourdieu characterized the imbalance in the gendering of space as that of “presence” versus “insignificance”:

One's relationship to the social world and to one's proper place in it is never more clearly expressed than in the space and time one feels entitled to take from others; more precisely, in the space one claims with one's body in physical space, through a bearing and gestures that are self-assured or reserved, expansive or constricted ('presence' or 'insignificance') (Bourdieu, 1984: 474).

Bourdieu puts forward the binary relations of power in sexual differences. But authors like Butler have argued that the binary distinction is itself a social construction, and that the body is produced by performative acts. The body is thus open to deconstruction and subversion and to different performances of the body in different site as it will be put forward in the examples of the home, the office and the streets. Once again most of the studies are concerned with differences between women's and men's occupation of space and little is said about differences between women's bodies in relation to space.

In the intersection with the mobile phone two main questions arise, one is that of the bodily display of the device itself and the second the disembodiment characteristics of mobile communication. In the change from the telephone to the mobile phone there was also a change from the collective to the individual and in this change the device came progressively closer to the body. Mobile phones were first car phones and now they have become prosthetic devices with the use of Bluetooth earpieces. They become a “second skin and can become an important part of the physical self by extending the body” (Campbell, 2008):

The mobile is always with me. If I have to go into another room in the house it goes with me. If I am using the vacuum cleaner I put it inside my pocket to feel it vibrate and I do the same for every task that it is loud and there's a risk of not hearing it ring. I feel naked without it. (Fátima, 56 year-old, married retired insurance professional, empty nester)

The bodily display or wearability of mobile phones is far less noted in women than in men because women generally carry mobile in their bags or purses. Despite their invisibility when not being used there are some gendered practices when they are being used or put on display:

I never saw the mobile phone as a fashion accessory. I carry it inside my purse so as long as I can hear it and it is reliable it is fine by me. (Carla B. 35 year-old, single, economist, Young Independent).

Studying class distinction, Pierre Bourdieu developed the concept of “hexis” that describes how social order is inscribed on the body: “social distinctions and practices are embedded in the most automatic gestures or the apparently most insignificant techniques of the body – ways of walking, of eating and talking” (Bourdieu, 1984: 466). The same can be argued about gender distinctions and distinctions within gender.

The way we use a certain device, our gestures when using it translate a gendered nature. An example are clam shell phones. Women’s preference for clam shell devices led to their rapid connotation as more feminine devices. Women’s preference seems to be rooted not in the shape itself that progressively became inscribed with gender stereotypes and thus rounded and softer, but with the practicality of being able to carry them in a bag or a purse without them being turned on when bumping into other objects and initiating phone calls or text messages with the consequent embarrassment and financial impact. Soon the gesture of using a clamshell mobile phone became a feminine gesture like that of opening up a vanity mirror:

I have three mobile phones, one for each provider and one of them is a clam shell and two are slide because all of them block when I close them. I used to have different models but sometimes I forgot and they kept making call inside my purse and I ended up spending unnecessary money. (Deolinda, 51 year-old, widow, owns a beauty salon, empty nester)

I choose my mobile phone because it was pretty, it took good pictures and you can close it. It does not have that problem with the keys. I am very distracted and I used to make a lot of calls without wanting to make them.
(Ana D1, 56 year-old, single, management assistant, mature independent)

The embodiment characteristics of the mobile phone device, its nature of “perpetual contact” also gives way to disembodiment⁴⁹ of the user that takes its most radical form in the use of text messages where not even the traces of the body conveyed by the voice are present. Much like the telephone, the mobile phone offers women new disembodiment opportunities that enable them to occupy spaces that are scary or hostile to them or to be “communicatively present while being physically absent” (Wajcman, Bittman, & Brown, 2008a). It also enables them to manage difficult relationships and avoid hostility as conveyed by one of the women interviewed that found the mobile phone text message service very useful to manage the relationship with her recent ex-husband:

When I dated my ex-husband we did not have a mobile phone so I never used it to date but now that we divorced and there is a conflict I use the e-mail and the text messages to talk to him because it is very hard to talk face-to-face. It helps a lot because I end up not getting as nervous as I would if we were physically together. I don't have to see his reactions to what I am saying. It helps to avoid the stress and the anxiety. And it was something I had to get used to using because of work. My chief uses text messages a lot.
(Carmen, 40 year-old, recently divorced, mother of two, sole care giver).

⁴⁹ The disembodiment characteristics of mediated communication have long been debated and have ranged from criticism to celebration. The debate started as early as the criticism of the written word by Socrates in Plato's *Phaedrus* (370 B.C). Socrates dismissed the written word for its lack of interactivity, because it did not allow for a dialogue. New communication technologies such as the Internet and e-mail have also been accused for the lack of presence and intimacy. On the opposite side they also have been praised for the possibilities they offer to breach political and physical constraints.

2.1.2. The Street – the high-tech *flanêuse*

*Everywhere you shut me in. Always you assign a place to me. Even outside the frame that I form with you....
You set limits even to events that could happen with others....
You mark out boundaries, draw lines, surround, enclose.
Excising, cutting out. What is your fear?
That you might lose your property. What remains is an empty frame.
You cling to it, dead.*

Luce Irigaray (Irigaray, 1992: 24-25)

Public places have been a hostile place for women, especially for those that had or wanted to move alone: “In the 10th and early 20th century, the presence of a woman on the street without a man indicated the woman was a public good or prostitute” (Stenson, 2006). Women had the freedom to walk around, while women were constantly concerned with their safety and respectability:

The street is the setting for much intimidation of women, from low-level harassment like wolf-whistling to physical manhandling and rape. In many parts of the city women rarely walk, especially after dark. The street then is a zone of occupation by men (Connel, 1987: 132-133).

The outside, the street where many leisure activities were located did not welcomed women with the exception of shopping places. Consumption became a leisure activity and a “partial liberation” for women (McDowell, 1999).

In modern cities there still seems to be a gendered etiquette for mobile use in public and for the “dance” that occurs between caller and receiver. These bodily attitudes in which the mobile phone is part create borders in the sense of what Goffman calls “symbolic fences” (1971) and Ling designates as “fictive curtains” (Ling, 2004b). In these interactional ritual women display a more discrete behaviour, they are more self-conscious and they exert a specific choice of tone (Hjorth, 2005a). The women interviewed were are very self-conscious of their conversations in public, they all stated that they looked for quiet places to answer their calls, lowered their voices and tried to keep the conversation short:

I prefer to be alone to answer the phone and it also bothers me to have to listen to other people's conversations unless the other person on the phone is someone I know, then it becomes a three way conversation. (Raquel, 20 year-old, single, student)

I think people cross the line when they expose their private life in public. Sometimes I end up having to hear those kind of conversations in public transportation. I would never do that and I do not like to see it happen. Sometimes it looks like an exhibition but perhaps they just loose the notion where they are. And the ringtones should also be chosen not to disturb. (Cecília, 46 year-old, divorced, mother of one, sole care giver)

When I ride public transportation or even in the beach I feel that people lack respect because they talk very loud. Even my husband does the same thing. I personally do not like to answer the mobile in the street. I rather use the mobile phone at home. (Paula, 59 year-old, married, retired, empty-nester).

The pervasive notion of public space as a hostile space for women might justify why women also use the mobile phone to build and convey a sense of safety and security (Stenson, 2006), to shield themselves against unwanted attentions. Plant (2001a) describes this act:

It was also observed that 60 per cent of lone women had a mobile phone on show – a far higher percentage than that of lone men (47 per cent), men together, or men together with women. Many women saw this reflecting their own experience of the mobile as a valuable means of keeping unwanted attentions at bay. A mobile projects an image of self-containment, and can legitimise solitude: I'm not alone, I'm with my mobile phone (41).

Safety is one of the main reasons why women decided to buy a mobile phone or one was offered to them:

My first mobile phone was my father that gave it to me because I was going to college and I was starting to travel and he preferred me to be always at reach. (Carla A., 30 year-old, tourism agent, single, mature independent)

I have since 1998 when I started to work. I had to travel much and the road was kind of dangerous and my idea was to feel more supported and safe. (Susana, 36 year-old, single, civil engineer, mature independent)

When I got my mobile phone I was already working, it was an offer from my parents. I was a bit resistant to having one but when I had a flat tire I changed my mind. (Ana A., 34 year-old, married, web content producer, mother of one infant)

As illustrated in figure 32 women are thus creating new actors, the “absent-present”⁵⁰ (Gergen, 2002) and “new social events” (Caron & Caronia, 2007). Mobile phones become shields or technological bodyguards. Goffman’s (1959, 1963, 1971) work on the behaviour in public spaces is particularly relevant to understand this social interaction. According to Goffman the “singles”, people who are alone in public spaces, are more subject to scrutiny and more vulnerable than the “withs”, people who are with other people. Thus “Singles” feel a need to guard from being approached and to legitimize their presence in a public space and many times they do it by using props that project a certain image, of being busy for example: “Singles, more than those who are accompanied, make an effort to externalize a legitimate purpose and character, that is, render proper facts about themselves easily readable through what can be gleaned by looking at them” (Goffman, 1963: 21).

That is especially true for women so their need to resort to this kind of gimmicks to feel comfortable in public places. Now the mobile phone provides the best solution because it is always with us and allows not only to project an image that were are busy, but also of being connected and thus we become virtual “Withs”, we summon the presence of

⁵⁰ The concept of “absent presence” proposed by Kenneth J. Gergen means that people are both in a place and not in a place simultaneously.

others to show the co-present that in fact we are not alone like described by Sándor and shown in the cartoon⁵¹ in figure 32:

In the middle of a room full of strangers in a depressing or simply dull situation, we can (virtually) be with those whom we are in a close relationship. We can instantly share our experience with them, we can ask them for help in solving a problem, we can get some comfort from them – or we can simply escape from the situation we are physically in to a mentally safer virtual environment (Sándor, 2005a: 20-21).



Figure 32. Cartoon showing a woman using a mobile phone at a restaurant.

When confronted with the cartoon all the women interviewed recognized the situation and most of them acknowledge that they have used the mobile phone for similar or identical purposes:

Oh yes that happens to me. If I am in a place with a small amount of people I don't mind being alone but if the place is crowded I feel the need to hold on to something and the mobile phone is the most obvious thing.
(Constança, 23 year-old, single, student, dependent)

⁵¹ The cartoon was used in the interviews. Women were asked to comment on it: if they recognized the situation, if they recognized themselves in the situation, what they thought was the cause for that behavior.

Yes that has happen to me many times I just changed jobs and I have to lunch alone plenty of times and the first thing I do is pick up the mobile phone and call someone so that I do not feel alone. It is ready at hand. And it is not only when I am having a meal alone, in other situations when I am waiting for something or someone I immediately pick up the phone and call or text someone to occupy time. (Ana A. 34 year-old, married, web content producer, mother of an infant)

It is funny because when I have to eat alone I immediately take that time to clean up the mobile phone and make all the calls I need. It is good company when a person is alone. (Patrícia D., 36 year-old, in a relation, marketing manager, nesting)

I have resorted to the mobile phone when I feel unsecure. Sometimes I pretend I am talking to avoid certain people. It is a very useful tool in that sense. They feel intimidated and do not initiate conversation if I am on the mobile. (Carla A. 30 year-old, tourism agent, single, mature independent)

Through the use of mobile phones women built cocoons that are “micro-places built through private, individually controlled infrastructures, temporarily appropriating public space for personal use” (Mizuko Ito, et al., 2008: 74). Very much as the trope of the “flâneuse”⁵², the mobile phone can also be used to subvert dominant cultural paradigms such as in Japan where young girls use the mobile phone to challenge masculine culture in public places: “Through their tactics of play, colourful dress, and mobile phone usage, they fight the hegemony of older men on subways, and in doing so produce space

⁵² The *flâneur* is a male figure of the nineteenth century that roomed the cities as an observer. In an essay “The painter of modern life” (1864) Baudelaire presented the *flâneur* as the symbol of the modern city, an anonymous figure that could gaze and walk the streets in invisibility. The *flâneur* was a figure restricted to men; women had no place in the urban landscape and were thus outsiders. The female outsiders according to Baudelaire were lesbians, old women and widows and prostitutes or whores. Authors such as Elisabeth Wilson (1992) disagree with the impossibility of a female *flâneur* – a *flâneuse* and that women in nineteen century cities had their own experience of modernity and displacement. And many authors have then argued that the city is an important site of challenge to gender divisions.

for themselves” (Steenson, 2006). They build new geographies of gendered identity, claiming their right to position themselves in a place that formerly was not theirs.

Also on the transgression side we should note the study of the use of camera phones by young South Korean women (D. Lee, 2005). Lee describes how young South Korean women appropriate the camera phone for cultural production, despite the prevalence of advertising that shows men snapping pictures of women. In this context women are using mobile phones to perform new meanings:

These women are not the mere owners of camera phones, but performers who create various cultural meanings. They develop a more intimate relationship with technology, challenge the convention of gaze, give meaning to what is taken, and circulate their own expressions (D. Lee, 2005: 12).

Portugal being a culture where the gender splits have become more relaxed, the women interviewed did not account for clear transgression practices such as the ones described in Japan or Korea. Most of them reported using the mobile phone as a means of reassurance when they felt out of place or under scrutiny meaning that are still places where women feel as trespassers and there was also a concern about safety and security while walking the streets at night or driving the car – the fear of being alone on the road was commonly addressed as one of the main motivators for owning a mobile phone and keeping it charged.

2.1.3. The Home and the Office – Juggling Spheres

I find a woman's intrusion into the House of Commons as embarrassing as if she burst into my bathroom when I had nothing with which to defend myself, not even a sponge.

Winston Churchill, cited in Vallance, *Women in the House*

Home and domesticity have always been imprinted into women’s identities and it brings with it multiple and layered affordances: a site of production, consumption, reproduction, inequality in unpaid labour, pleasure in reassurance and security and insecurity due to domestic violence:

Housework and childcare in particular were seen as women's 'sacred' duty, they and the 'master' of the house being protected in this sphere from the harsh competitive world of capitalism. The home became an idealized centre for emotional life; where feelings that might be disguised elsewhere were allowed full rein. Thus the home was constructed as the locus of love, emotion and empathy, and the burdens of nurturing and caring for others were placed on the shoulders of women, who were, however, constructed as 'angels' rather than workers (McDowell, 2003: 75-76).

The naturalized association of domestic work with women as described by McDowell is still entrenched in our societies as even the younger generation of women still accept an uneven division of household work and specially of childcare as described in Part II of the thesis that is very much the situation in today's Portugal even for younger generations:

Now that I am unemployed I end up doing more things. He has some tasks like taking care of the backyard but I think it is much harder on a woman that has more tasks to be worried about on a daily basis. He can take care of the backyard every other week but I can't cook every other week. I think it is something imposed by society. A men immediately thinks he is not going to clean up the bathroom. They immediately think it is something for a woman to do. . (Carla, 34 year-old, unemployed marketing manager, mother of a small baby)

So we still see a traditional gendered domestic division of labor⁵³ where women are the main caregivers for the family and the ones responsible for the home chores. Even when they get external help with heavy-duty tasks they are still the ones that have to organize those activities:

⁵³ The concept of the domestic division of labor refers to the division of tasks that have to be performed in a home between members of a family. The traditional gendered division is the one where men were responsible for earning money outside the home and women were responsible for the tasks in the home that were not regarded as work and were unpaid task, labor of love. The focus on this issue began in the seventies with Marxist feminism. With women going out to work outside the home this division lingered and gave way to what some authors call the "double shift" in which women perform their jobs outside the home and then come back home to do their traditional tasks. So although women have conquered different spaces they have not conquered time, especially leisure time. Men come back to their homes to relax and spend their free time and women come back to take care of their children and their homes leaving no time for leisure activities.

I notice more things that have to be done around the house. I have to remind him of the things that have to be done but there are things that he says he doesn't like to do. In the beginning it was very complicated and we even argued but I am lucky because he is very tidy and I know how other men are. (Catarina, 31 year-old, married, teacher, nesting)

Nevertheless, it is a fact that the physical walls of the house and the metaphorical walls of the home have been breached by technology. In chapter 2 of Part I it was already discussed how the telephone changed the domestic environment and now the mobile phone further enables the enactment of multiple affordances such as that of mothers and breadwinners

Offices and other professional spaces are public spaces and thus subject to the dichotomy that associates the private with women and public with men.

The precursor of the mobile phone, the telephone opened up workplaces for women outside the home. But even as workplaces are opened up to women, “their concentration in feminized occupations has remained a dominant feature of their employment pattern” (McDowell, 1999: 124). This justifies why still today women feel they have to prove themselves to their male counterparts:

I noted that the same functions were paid and understood in different ways if you were a man or a woman, not in what regards credibility but in terms of your recognition. I feel we always have to give out more than men. That even happens in my field, where we are mostly women, because I work in a male culture company. I have to surpass myself for them to see that I manage to do my work well. (Patricia, 36 year-old marketing manager, nesting)

So workspaces as constructed as gendered spaces. Spaces embody gendered attributes and thus certain bodies, male or female, might feel out of place or in need to fight for a place. Technology can be a tool to conquer a place, to signal that we belong.

I have a black Blackberry Curve that was a gift from my parents. I would not buy a pink one, but I would buy white if they had it in white. This question of color was even an issue when I bought my notebook pc. I could choose between a pink, a white and a black one and my sister promptly said not to choose a pink one because no one would take me seriously. And in fact I like pink stuff but it is kind of a childish color and because it is associated with a more feminine culture it is not well regarded in professional settings. So I ended up buying the white one because it is more feminine than the black but it is still a professional and technological color. But truth be told, if I could choose I would choose the pink one, I have a lot of pink things but not technological ones. (Inês R., 25 year-old, single, marketing manager, young independent)

The behavior described by Inês R. is a common behavior in women trying to assert their professional abilities. Sensing that work is ruled by male cultures women try to project a professional image by abiding that male culture. “People perform their sense of their own gender, not only by words and gestures, but also in material ways: by wearing baseball caps or skirts, ties or jewelry; by tinkering with cars or baking cookies; by shaving with particular colors of razors” (Lerman, Oldenziel, & Mohun, 2003a: 4). In this case it is not so much a performance of their gender but more of a masque for their gender. By choosing black or a more acceptable color for a professional setting women are abiding stereotypical rules. They can trespass on a male culture by they have to pay the price and in this case is their own femininity. This is particularly relevant in the first life-stages of women’s lives when they are trying to project an independent and professional image.

Notably the mobile phone seems to perform than function in women’s lives. Because the mobile phone was first promoted as a professional tool, its ownership by women is also a way to signal that they mean business and legitimate their occupation of male spaces: “In the case of the Mother the mobile phone might well mediate the performance of a traditional maternal role, but it also mediates her performance in the role of contemporary breadwinner” (Arnold, 2003: 250) . So the mobile phone enables women to juggle spheres.

I never turn off my mobile phone because it is my connection to the world, with my parents that are becoming old and with my kids that are loose out there. And professionally I have to be available 24 hours a day. I only accept turning it off if I am with my kids but even then I always feel something could happen (Sofia S., 47 year-old, Human-Resource Manager, divorced, and mother of two pre-teen and teenage boys, sole care giver)

In their study of suburban women in Chicago, Rakow and Navarro (1993) concluded that the mobile phone “let women practice remote mothering” and “work parallel shifts” (153) meaning that women that did not work, much like the former use of the telephone, could perform “their expected responsibilities and prove the correctness of the social definition of being a woman” (146) and that women that worked outside the home could “exist in their domestic and work worlds simultaneously” (153).

The concept of “parallel shift” extends the concept of “double shift” because with the mobile phone women no longer need to get back home to fulfil some of their household chores. Rakow and Navarro considered the mobile phone a reinforcement of traditional roles for women but it is unquestionable that it gave women autonomy and a control of their space and time that they formerly did not have. Women that were bounded by geography and by the need to work close to home can now have more freedom of movements and choices because they are always connected to those that need them:

I bought a mobile phone for my ten year-old son because I get worried for being on this side of the river. If something happens I take too long to get to him. In this regard mobile phones were a great invention. When you have children they are very useful (Carmen, 40 year-old, divorced, secretary, sole care-giver)

Similarly to Rakow and Navarro’s study, the women interviewed reported heavily using their mobile phones for personal or domestic responsibilities. The same results came out in the study of how the mobile phone affects the permeability of boundaries between home and work in Australia (Wajcman, Bittman, et al., 2008a), where the results “demonstrate that the mobile phone is not primarily a work extension device (648) When asked what sphere would be most impacted if they were to spend two weeks

without their mobile phones, they were assertive on answering that the private sphere would be the one most impacted:

If I had to give up the mobile phone it would be complicated. Until recently it was not like that but now with the kids I feel the need to be in touch. The first son was the landmark. Work related it would be positive because it would dismiss some contacts but in my private life it would be extremely complicated because nowadays I am very much dependent on the mobile phone to coordinate daily life activities (Margarida, 33 year-old, married, safety engineer, mother of two infants).

In their study of the hybridization of home and work spaces Wajcman et al propose the concept of “connected presence” to explain these social practices:

Mobile phone owners maintain control over what passes through the boundary separating work and personal life, choosing when to switch off their phone, when to allow messages to accumulate in message banks and whether to leave the phone behind. In relation to the control of the flow of communication, respondents are most careful not to disturb strangers (for example, in the cinema and restaurants) or colleagues at work meetings. However, they are more relaxed about communicating at times reserved for family solidarity. Perhaps this is because the phone is so closely associated with a deepening of connections with significant others that there is less need to control the flow over these temporal boundaries. Indeed, it may be that people positively welcome the softening of the boundary between home and work afforded by new communication devices because, rather than fearing work intrusion, they are seeking deeper contact with family and friends (Wajcman, Bittman, et al., 2008a: 649).

This concept of “connected presence” or “families without borders” is well expressed by the women interviewed:

The mobile phone is always with me. I never turn it off. I used to do it but my mother became sick and I now I always leave it on. And even after she died I kept on doing it because I am afraid someone might need me. And my father is becoming old and this way I am more reassured. I once spend a day without it and it was hard. It is an anguish not to be able to provide for my kid at a distance. I would be anxious not to be able to speak to my son. (Cecília, 46 year-old, divorced, mother of a pre-adolescent son, sole care giver)

2.2. Conclusion

Without even leaving, we are already no longer there.

Nikolai Gogol

Although the concepts of space and place have been the object of a long controversial debate there is a growing acceptance and recognition of their cultural articulation. New technologies have brought new affordances to gendered places by allowing the building of a unique and individual experience.

In an increasingly mobile society, the mobile phone became a place for many of us - the place where we can be found, and the place where we can hide. The hybridization of public and private, of personal and professional, of leisure and work is one of the most relevant aspects of the mobile phone.

We are living in a culture of “perpetual contact” where the mobile phone invades even the most smallest and sacred places of our lives, it goes to church and to our classrooms, to our beds when is placed under the pillow case by a teenage girl so that no message is lost and to our bathrooms in our offices to that no phone call is left unanswered.

The need to always be in touch also addresses the wearability of mobile phone. They are carried closer to our bodies; they became an extension of our senses, a prosthetic device for our voice, our eyes, and our ears. And in this process they are object of embodiment and disembodiment practices.

As embodied objects they are part of power relationships related to the presence or invisibility of certain places such as our streets, our homes and our offices. So the space negotiations are one of the examples of the moving nature of mobile acts. Women’s choices can be an option to conform to the masculine norm, of abiding “gender scripts”; a form of using femininity as a masque against retaliation or of disguising power uses of technology that would confront men; or a self-expression of women’s individual personalities. Once again the mobile phone serves multiple purposes: as a defence mechanism, to legitimate women’s public presence or to subvert traditional meanings.

In some contexts, women present themselves as “space invaders” (Puwar, 2004), they are conquering spaces that were traditional hostile to them. Women are “nomadic subjects” (Braidotti, 1994) crossing and invading boundaries and patriarchal heritages. In this the mobile phone is a tool to challenge the norm.

These space negotiations have also different meaning according to women’s life stages. For the women interviewed that were still dependent living in a family space, their mobile phone was mainly a social networking device that allowed them to summon their network of friends, to keep them at hand even in spaces that could not be physically shared. For the Young Independent the struggle is mainly to find their place in the world, to initiate a career and still maintain a strong social activity. They are strongly confronted with the separation of leisure and work places and use the mobile phone to float between the two. For the nesting women the challenge is the sharing of a common space, the negotiation of distance with family and friends and the mobile phone enables them to manage the multiplicity of spheres in their lives. As for mother or the sole caregivers the mobile phone becomes a “remote mothering” and “parallel shift” device allowing them to perform multiple roles in spite of their physical location. They could be in the office and still keeping track of their kid’s homework or transport arrangement or be in the home and setting up meetings or having conference calls with office colleagues. For mature independent the mobile phone is a tool for maintaining a sense of security in their mobility. For the empty nesters the mobile phones breach their isolation and enable them to keep an independent and connected life.

Keeping in touch across space barriers, building their own sense of space are common to all stages of women’s lives. Women may be physically more restricted to a certain place in a certain stage but they use the mobile phone to cross those borders and stretch their presence.

3. Gendered Time

We are embodied time.

(Castells, 1996: 429)

Today it is expected of us to be available any place, any time. The time we knew to be linear, irreversible and measurable is being transformed⁵⁴. To this new conception of time Castells calls “timeless time”, referring to the breach of sequentiality in social actions, be it by the compression of time, or by the random ordering of moments. All the ordering of moments has lost its chronological rhythm and is now organized in temporal sequences conditioned by its social use or purpose:

I propose the idea that timeless time, as I have label the dominant temporality of our society, occurs when the characteristics of a given context, namely, the informational paradigm and the network society, induce systemic perturbation in the sequential order of phenomena performed in that context. This perturbation may take the form of compressing the occurrence of phenomena, aiming at instantaneity, or else by introducing random discontinuity in the sequence. Elimination of sequencing creates undifferentiated time, which is tantamount to eternity (Castells, 1996: 464).

Timeless time translate into instantaneity, or the speeding up of events, and desequencing, a “perpetual present” of which one of the evidences is the breaking down of “rhythmicity” through the technological transformations of the life cycle that dictates the end of the biological reasoning. Biology no longer dictates when we become parents or old. Time, as we knew it, as an ordering of things or events, or spaces, has been dissolved by the space of flows. But this trend is not dominant worldwide and in also object to resistance:

⁵⁴ Time has been the subject of numerous analysis and theoretical debates. Although this chapter cannot accommodate an extensive discussion on the concept of time it is worth referencing some theorist namely the seminal work of Harol Innis (1950, 1951, 1952), Giddens work on modernity (1981, 1984, 1990), Lash (1990) and Scott and Lash (1994) on the articulation of time and space. The acceleration of time and the compression of time-space are constant themes in sociology, philosophy and geography theorist. Empirical work on the speeding up of time also abounds (Frederick, 1995; Gershuny, 2000; Linder, 1970; Robinson & Godbey, 1997). The acceleration of time is also pointed out as a paradox in face of the acceleration of technology (Rosa, 2003). The discussion about time scarcity has also been centered on the balance between work and family.

While the emerging logic of the new social structure aims at the relentless supersession of time as an ordered sequence of events, most of society, in a globally interdependent system, remains on the edge of the new universe. Timelessness sails in an ocean surrounded by time-bound shores, from where still can be heard the laments of time-chained creatures. Furthermore, the logic of timelessness is not displayed without resistance in society. As places and localities aim at regaining control over the social interests embedded in the space of flows, so time conscious social actors try to bring under control the ahistorical domination of timelessness (Castells, 1996: 467).

The mere fact that one has the possibility to communicate with what one can call “the absent others” (Giddens 1990), and thus have the possibility to go beyond the need to coordinate actions beforehand, gives the mobile phone a strong role in the restructuring of time. It is what Anthony Giddens calls the “disembedding” of social interaction that is the central issue in this matter. A fundamental change in the notion of time happens when it is possible to exist in a communication-sphere regardless of spatial boundaries. The coordinating aspects of clock-time are put under pressure from the ever present and dynamical restructuring and renegotiation aspects of the mobile phone. The linear time – as in clock-time – is not changed, what is changed is how the linear time is filled with actions (Johnsen, 2001: 63). We are available wherever we are and we can even resuscitate time, as the one we spend in transportation or in waiting lines. The practice of using the mobile phone to build a personal cocoon enables people to “transform ‘dead time’ in incidental locations into time that is personally productive or enriching” (Mizuko Ito, et al., 2008: 74).

Time is also gendered and in a time-constrained society, women are perceived to be amongst the poorest. To the popular question, what do women want, the most common answer would be “more time” (Silverstein & Sayre, 2009b). According to Diane Negra there is a “feminization of the temporal crisis” (Negra, 2009: 48) which is a hallmark of postmodern culture and postfeminism. Female philosophers like Kristeva (1981) and Grosz (1994, 1995, 2004, 1999) propose a female notion of time bounded by women’s corporal experiences and by the unexpected. According to Kristeva the concrete experiences of women’s bodies are not compatible with the masculine linear and industrial conception of time but still women are forced into timetables. Elizabeth Grosz speaks of the female desire for something new. But beyond the corporal and the biological, women and men are also socialized into different time cultures, where women’s time is defined as relational, that is directed to the care of others (Nowotny,

1989/2005), thus “women often feel alienated from their ‘own’ time” (Huijer, 2010: 78). Barbara Adams (1995) speaks of the need of women for “open-ended-time” because most of the activities performed by women such as caring, loving, educating and household management are unpredictable. Nowotny (1989/2005) also describes how women have less possibilities to structure their time and how their life courses are less unified and coherent than men’s. Diane Negra notes the punitive discourse around women’s time pressures, with “temporal problems that may frequently be resolved through minimization of their ambition and reversion to a more essential femininity” (Negra, 2009: 48).

In Portugal, that registers one of the highest employment rates for women, women’s time constraints are high. According to the national survey on the uses of time (INE, 2000): The combined professional work, household and family care average duration is 6.96 hours for the employed male population and 8.67 hours for women with the great discrepancy being that household chores only account for 20 minutes in the male population and 3 hours in the female population. Leisure time is also reduced for women with the average being 2.30 for the male population and 1.42 for the female population. These numbers even show a bigger gap in the unemployed population where men only devote 2.08 hours to household chores and family care versus 5.58 hours for women and in the retired population where numbers are very similar 2.08 for men and 5.19 for women. These time differences are absorbed by leisure time to which retired men devote 5.26 hours versus 3.24 hours for women. So, even in advanced life stages the constraints on women’s time are not reduced. This portrait of time constraints for retired women is well described by one of the empty nesters women interviewed:

I wake up in a hurry and I sleep in a hurry. Now that I am retired it is even worse than when I was working. In the morning have to dress two kids, get them ready and take them to school. I come back to pick up my other granddaughter. Then I make lunch for her and my husband and I clean up the house. I give lunch to my granddaughter and at half past three I have to pick the kids from school. We get home and it is time for bath e get my smallest granddaughter ready for her mother to pick her up and lately my daughter is doing her masters degree so many times she ends up sleeping over and instead of two grandchildren at my care I end up with three. It is time to get them asleep and go to sleep in a hurry so that the show can start

all over again the next morning. My husband who is also retired only helps with the car pools. He sometimes only makes everything worse because he likes to see everything tide up but he only does something when it is strictly necessary or I ask him to do it. With all this I end up having little or no time for television or a book. I never had so little time as now. When I worked I had more time. At the weekends it is time for heavy duty cleaning and sometime we go down to our house in the country where I also end up doing the cleaning. (Maria, 60 year-old, retired teacher, married, grandmother of three, empty nester)

Also according to the survey on the uses of time in Portugal, the feeling of being rushed and time pressure is also higher for women and it starts at a younger age with 41% of young women, aged between 15 and 24 year old, saying that they feel rushed versus 29% of young men. The statistics are fairly the same for other European countries⁵⁵ (Aliaga, 2006; Communities, 2005, 2008).

3.1. Time Bind

It is ironic that in a culture so committed to saving time we feel increasingly deprived of the very thing we value.

(Rifkin, 1987: 19)

Time is certainly one of the main concerns for the women interviewed. Across all life-stages but specially for women that are mothers or sole care-givers time poverty and the paucity of leisure or of personal time is one of the main obstacles in everyday life and more time is the most common need:

⁵⁵ No direct comparison can be established, as Portugal has not collected data for the Eurostat surveys on the uses of time.

I feel that life is a bit monotonous. I don't have time for myself, leisure time: to do a massage, lay down on the sofa, go have a coffee when I feel like it. I feel lucky for having a child but I don't feel 100% fulfilled. I need to have a job and time for leisure. I need to go out, of meeting friends without my daughter or my husband. (Carla D., 34 year-old, unemployed marketing manager, married, mother of a toddler).

I feel the need to have help around the house. I try to postpone to get help because I am trying to educate my husband and my children but I end up thinking that it is a drag to go home at the end of the day and still have to do the housework and do things that I never enjoy doing. And now we are four. With that help I would gain quality of time, to be more around the kids. I would not use it to work. Most of the times I wake up earlier to do the house chores and that way I could watch more TV at the end of the day, or read a book without falling asleep because I would not have to wake up so early. (Ana D., 39 year-old, business owner, married, mother of two children)

With many evidences that in fact we have more time than in the past, social scientists have been looking for explanations to our perception of time poverty. One of those explanations is the redistribution of paid work between the sexes and the rise of dual earners households (Bittman, Rice, & Wajcman, 2004; Bittman & Wajcman, 2000). Feminist literature also accounts for women's time constraints justified on the basis of the "double burden": women have to work outside the home but maintain their responsibilities for the household chores and "time use data does indeed show that time poverty is a particularly widespread experience among working mothers who juggle work, family and leisure" (Wajcman, 2008: 64). Portugal has one of the highest rates of women working outside the home in Europe but nevertheless men's participation in domestic chores is very low and always inferior to the female participation: "female emancipation and participation in the job market brings a high cost that translates into a daily 'gymnastics' of women to multiply the time they have for the multiple tasks that are traditionally their responsibility" (Perista, 1999: 236). When questioned about their

daily activities, the women interviewed, across all life-stages, reported being burdened with household responsibilities:

I am getting a divorce but the routines are the same because I used to do everything and I still do. We did not use to share household chores. He would handle the taxes and I did everything else: organize family life, worry about the kids, supermarket, pharmacy, paying the bills, social security, shopping for the kids. (Sofia, 47 year-old, human resource manager, divorced, mother of two teenagers, sole caregiver)

Except for cooking which is generally a task for my husband I do everything else. But even for cooking he is not doing much nowadays. But I understand and I give him some slack. He also helps with the kids. I do my shopping online but he does not clean a bit, even basic things like putting clothes in the hem. All the bureaucracies are also my responsibility. I am not happy about it. We used to have house help four times a week but we got into an argument and she left and it is not easy to find someone else. I also thought it would be good to not have help so that the kids and the husband could learn some simple rules but it is been six months and there is no change in their behavior. I would like to go back in time. I think it is impossible to share my tasks with my husband because he simply does not perform assigned tasks. The time I waste telling him what to do over and over and thinking or worrying if the tasks were done or not I simply do it myself. (Ana D., 39 year-old, business owner, married, mother of two children)

All the household chores are my responsibility. My husband is a very good man but he does not do a thing around the house. I have help with the clothes and with the heavy-duty chores. My husband only handles the bills and paper work. (Fernanda F., 52 year-old, computer manager, married, empty nester)

Men can help but the woman is always the woman and the mental part, the organization has to be ours. They (the men) are not proactive. We have to plan and then they can execute – some more than others. My husband goes shopping but he has to ask first what we need around the house. After our son was born I had less time so now he does the bills but it is still me that organizes everything. (Silvia, 29 year-old, nurse, married, mother of an infant)

The felt need to have more time is also rooted in the fact that women have to perform multiple tasks in different spheres of their lives. Multitasking seems to be a trademark for women.

3.2. Multitasking

Manuel Castells designates multitasking as the “blurring of time and space” (2008) and shows how the mobile phone has become the tool of choice for multitasking by enabling the hybridization of spaces and the blurring of sequences in time. Southerton and Tomlinson (Southerton, 2006; Southerton & Tomlinson, 2005) designate this pattern of allocation of tasks as “temporal density which together with “temporal disorganization” and volume constitutes the basis for the sense of always be running out of time.

Multitasking is also commonly associated to women who are believed to be better at multitasking than men. Data supports the fact that women perform more tasks at the same time. In a recent study about media multitasking, 31,4% of women talked on the phone or on the mobile while they were watching TV compared do 30,1% of men (Araújo, 2009). The women interviewed generally acknowledged that they did a lot of multitasking, not always as a choice and that many times that was a cause for stress:

I feel very stressed out. I have to do a lot of things in little time and I have to make them all and because of that I am always running. For me multitasking is a necessity I would do it differently if I could. Women are expert at having a lot of things to do at the same time. Women's time is always more constrained although that is beginning to change. Women have been raised to have several tasks and responsibilities: family, home, and

work. Especially in Portugal where women work a lot outside the house, women have a lot of things in their minds. While my husband walked calmly to his job I had to worry about everything else. And I think that happens with most women. (Sofia, 47 year-old, human resource manager, divorced, mother of two teenage boys, sole caregiver)

I feel stress because I do a lot of things at the same time. I learned to work and study at the same time. I wake up very early and go to bed very late. And at the same time I try to accommodate lunches with friends. I try to have a balanced life and keep up with all my tasks. And I think women have a more stressful life. We are more multitasking and we do more things. We are more connected to household management but at the same time we have our jobs, we go shopping and we like to look out for our looks and all this is hard work. To manage everything on a daily basis takes up a lot of time (Inês, 25 year-old, marketing manager, single, young independent)

Multitasking seems to affect especially the quality of time and perception of having been leisured or not. Although most of the times no average difference is found, the qualitative experience can be quite different as pointed out by Wajcman

While there is no significant gender difference in the aggregate time men and women spend in leisure, we argue that the *quality* of leisure differs in two important respects (...) we show that men enjoy more leisure time that is uninterrupted. Women's leisure by contrast, tends to be conducted more in the presence of children and subject to punctuation by activities of unpaid work. In addition, the average maximum duration of episodes (blocks of time) of pure leisure is longer for men. It seems reasonable to assume then that women's leisure time may be less restorative than men's (Wajcman, 2008: 65).

3.3. Moving Time

The role technology plays in this process of time poverty and in the perception that time is saved or lost has been very controversial. From a co-construction perspective it is easy to understand that their impact would never be straightforward because "technologies change the nature and meaning of tasks and work activities, as well as creating new material and cultural practices" (Wajcman, 2008: 66). Acknowledging the agency of

users, in our case women, allows us to understand innovative uses of technologies such as the mobile phone to take control of time.

Most of the women interviewed have indeed referenced the mobile phone as a tool for saving time namely by minimizing the “temporal dis-organization” (Southerton, 2006; Southerton & Tomlinson, 2005) through micro coordination and control:

The control the mobile phone brings to our lives seems intuitive. In allowing for a more unplanned daily activity, it would appear to diminish the control over the activities in which we are involved. Yet, it is because the mobile has made them controllable, that unplanned patterns of activity are able to thrive (Ilharco, 2007b: 70).

With the mobile phone, especially with the web-enabled phones, we are in “perpetual contact” (J. Katz & Aakhus, 2002), in a state of “constant availability” (Chayko, 2008). This constitutes a paradox for the women interviewed because if on one hand that helps to release the anxiety, especially for mothers and sole caregivers that have children or relatives that depend on them, and to feel more connected to our network and thus emotionally rewarded, on the other hand it leverages their multitasking and burdens their daily life with tasks related to their caring labour and unpaid work, namely household management:

The mobile phone allows me to manage my personal and family life in a more effective way but I feel free when I am able to turn off my mobile phone, especially if I go out without one. (Sara, 35 year-old, social worker, married, mother of two children)

I use the mobile phone a lot and I feel that if I leave home without it I will miss it. There's a lot of stuff I get around on my way to work. We are doing multiple things at the same time and that is an advantage. On the other hand if I could spend two weeks without it, it would be great, I would have a less stressful life and I could take advantage of things that I can't now. I end up not looking at the scenery or just be in silence. But once again I know I would be more anxious. Even if I don't need to use it, it is always there and that is reassuring. (Inês, 25 year-old, marketing manager, single, young independent)

This widespread need has generated a social expectation that everyone should be available and when people choose to be out of touch or end up being out of touch by

accident it triggers criticism and sometime even self-criticism or remorse for having chosen to be out of reach:

Sometimes I turn it off (laughs) when I don't want to be disturbed. If I only put it in silent mode I would still see when someone calls me or sends me a message and I would start thinking about it. It is pretty common to turn it off not to have a connection to the outside world. But then when I turn it on I get anxious and start thinking that something might have happen. And sometimes it happens that I have a lot of messages and missed calls and then I have to return them all. (Catarina, 31 year-old, teacher, nesting)

One of the most noted reasons for wanting and needing this constant availability to others, and of others, is an emergency. It was one of the most common justifications given by the women interviewed for purchasing a mobile phone and is also commonly referred to in other empirical studies as a “life-line” (Castells, et al., 2004a; Chayko, 2008; J. Katz & Aakhus, 2002; Ling, 2004b). Even for those few women that don't attribute a high value to the mobile phone, they recognize its usefulness in emergencies:

I had some resistance to using a mobile phone until one day I got stuck in the road with a flat tire and then I changed my mind. (Ana A., 34 year-old, web content producer, married, mother of an infant)

Some resistance comes from the perceived notion of the loss of privacy: “There is an increasing tendency to slip between private and public modes of interaction, as a result of the new forms of fluid connectivity enabled by mobile communications” (Sheller & Urry, 2003: 39). This perception leads women to engage in creative forms of avoidance, it also justifies the preference for asynchronous forms of communication, namely text messages. In a recent article in *Wired* magazine, Clive Thomson wrote in the “death of the phone call” (Thompson, 2010). He refers the shrinking number of phone calls and also of their duration. With more options for perpetual contact that come from new features in mobile phones users are opting for asynchronous forms of conversation or tools that enable that show status information that allow a better management of privacy and availability. The author also notes how people now coordinate important calls in

advance through e-mail, text messages or chat so that those calls become more effective and so that we can control social interaction⁵⁶:

I rather use text messages when I don't want to talk, as a way to save time and patience. (Cecília, 46 year-old, human resource technician, divorced, mother of a teenager, sole caregiver)

I don't like to speak on the phone so I rather send an email or a text message than to make a voice call. Only when something is very important do I use voice because I think it is better that way. (Sónia, 27 year-old, pharmacist, nesting)

⁵⁶ In a context that according to Bolter and Grusin (1999) is increasingly characterized by immediacy and transparency users need to regain control. Some features of the mobile phone seem to serve that purpose better than others. Text messages seem to be in tune with the control needs of everyday life while video calls are constantly being refused by consumers (Ganito, 2010a). The mobile phone embodies the double logic of "remediation": It is a heavy contributor to the hypermediated world we live in but at the same time it perfectly translates the denial of the mediated character of digital technology. We seek the disappearance of the medium: We get angry when we do not get proper reception, or when the battery goes down and we are not able to make the phone call we wanted. Also, in a context where we have already remediated the past, where we are constantly remediating the present, we now turn to the future. The goal now is to always be prepared, to avoid trauma or shock. In premediation (Grusin, 2004) the aim is to provide an affective experience of what might happen, so we adopt several protocols of avoidance, anticipation and control. The mobile phone embodies this need for premediation and the features that best translate it, are the ones that get accepted, while others only provide losses that are not offset by the benefits: "The survival of the fittest media means the survival of media that most fit our needs" (Levinson, 2004: 12). The mobile phone allows us to live in a constant movie trailer context. We can seduce, prepare, avoid, and create lower or higher expectations. This is the general nature of the mobile phone but some features, as text messaging, translate it better than others. Today, text messaging is one of the most successful features, besides voice. We can argue that it owes its success first of all to its non-intrusive nature. As we never now where we are going to find the ones we call, a text message ensures minimum disturbance: "the silence of text is probably its biggest social asset" (Levinson, 2004: 112). It is also a better way of conveying specific or complex information and to control it. With text we can decide when to answer and have time to think through what to answer. Voice is impulse and text is to ponder. Finally text allows the user to control the length of the interaction and the context. In text there is no background noise and no specific tone, so it allows for a higher degree of privacy. In the scope of McLuhan's tetrad of media effects texting would be in the quadrant of reversal. McLuhan said that, when pushed to extremes and as a reaction to its unintended consequences, the medium reverses to a previous form. In the face of total access, we voluntarily constrain our freedom of communication, at least the oral one. And we could say that the constant introduction of features and dimensions is what pushed the mobile phone to its limits. Contrary to text messages, that was mainly an accident, an unintended use; the concept of video calls has been around for a long time but the lack of control over presentation has led people away from massive adoption. Nevertheless, video conferencing has been quite successful in professional contexts where indeed you are able to control your performance. Video calls are considered highly intrusive and have never gone past the toy phase of technology. You could try it for a couple of times or use it in exceptional circumstances but you do not accept it in your daily routine. Although camera phones are hugely successful most of the uses are for reporting (asynchronous) and not live conversations. With live calls, the phone can no longer be used as a shield, a gatekeeper and thus would lose its usefulness as a tool of "premediation".

The “always on” nature of mobile phones has also led to a extensive discussion on the role they play on the hybridization of time, especially on the balancing of family and work life.

3.4. Balancing the triple challenge of time: work, family, and personal time

With mobile phones being introduced as professional tools they have been many times regarded as a facilitator for intrusion into family time but “the same technologies can mean very different things to different groups of people (...) rather than simply reading them as adding to time pressure and accelerating the pace of life, mobile modalities may be creating novel time practices and transforming the quality of communication” (Wajcman, 2008: 70). Like the landline phone that was diverted from a business tool to an easy way to contact relatives and friends, so as the mobile phone been domesticated as a social networking tool. In fact although most of the women interviewed acknowledge the mobile phone as an important tool for their jobs, they mostly rely on in for managing their personal lives. When asked what sphere would be mostly disturbed if they were deprived of their mobile phones, women across life-stages, but once again, especially mothers and sole caregivers, the life-stages where time bind is most critical, were almost unanimous in indentifying their personal lives as the sphere they would have more trouble managing:

If I had to be without my mobile phone it would be better work wise but in my personal life it would be worse. I find myself very dependent on coordinating little things, the daily life tasks. I have a landline phone but it is not practical. I don't even know the number anymore. (Margarida, 33 year-old, engineer, married, mother of two infants)

Also none of them seem to feel that their family time was affected by the presence of the mobile phone. This conclusion is consistent with the study of cell phone

and time scarcity in Australia⁵⁷ (Bittman, et al., 2009a; M. Bittman, J. E. Brown, & J. Wajcman, 2009b; Wajcman, Bittman, et al., 2008a; Wajcman, Bittman, Johnstone, Brown, & Jones, 2008), “it may be that, with ‘seamless connectivity’, the separation of home and work that we take for granted in modern societies is in the process of reformulation” (Wajcman, 2008: 74), providing women with flexibility to manage their schedules, “perhaps this is because the phone is so closely associated with a deepening of connections with significant others that there is less need to control the flow over temporal boundaries (...) creating families without borders” (Wajcman, Bittman, et al., 2008a: 649). This welcoming of “boundary permeability” is expressed by Vanda, a training technician that recently became more mobile in her job related activities with many meetings outside the office. Formerly she relied on the landline phone for most of her contacts but now she has welcomed the mobile phone as a tool for micro-coordination and recognizes that it allows for a greater degree of freedom:

In vacations is good not to have the mobile phone with us but on a daily basis is very complicated. It is my contact with my friends and my family. Without a doubt that the personal sphere would be the one most hurt if I did not have a mobile phone. Only recently did I start using it more on a professional basis. Now I sometimes give my phone number for professional contacts and I even think that doing this gives me more freedom because I can be reached wherever I am and not only in the office. (Vanda, 36 year-old, training technician, nesting)

⁵⁷ The research set out to analyze the relationship between cell phones and time pressure in Australian workers. The study used a questionnaire, a phone log and a time-diary. Three hypothesis were tested: that mobile phones led to an uncomfortable acceleration of the pace of life; that it extended employment beyond location and temporal boundaries and finally that it intensified the pace of work. The acceleration hypothesis was not supported: “While the elimination of ‘dead time’ might sound like an escalation of the pace of events, making calls during these times might also relieve stress. In particular, this could be achieved through ‘time-shifting’, so that activities are no longer tied to a particular place and therefore can be conducted at times that were previously characterized by enforced idleness” (M. Bittman, J. Brown, & J. Wajcman, 2009a: 680). The findings are also not consistent with the proposition of the mobile phone as a work extension technology as calls and text messages, in any given time of day, are vastly directed towards family and friends. But the mobile phone does seem to intensify work pressure. Nevertheless this last finding could only be supported for male workers, as the sample did not include enough female workers.

Not only is not the mobile phone not intruding in family time as it may be all the other way around entirely. Some studies have reported that only women felt that family related calls spilled over into their working schedules (Chesley, 2005). This reinforces the traditional gendering of time where family management seem only to burden women. This feeling of not being able to disconnect from family worries was reported by the women interviewed and was even clear during the interviews that, in many cases, were conducted during working hours but constantly interrupted by calls from family members.

Women also pressured on their leisure time with men having “many more hours of pure leisure uncontaminated by combination with unpaid work [also] men’s leisure is less likely to be interrupted than women’s” (Bittman & Wajcman, 2000: 185). There is a lack of a right to be entitled to play, to have fun or to simply relax as described by these two mothers:

I feel completely stressed and the sources for that stress are my routines. I have very tight schedules and it seems that I have to be a step ahead of everything. All my tasks are tightly programmed. Every day between 8 o’clock and 8:05 my kids are sitting down for breakfast and at 20:00 they are having dinner, and it does not matter if I get home at seven or half past seven. And sometimes this becomes very heavy on me. I get home, I lay down my jacket and I get to work instead of relaxing. Now that I am 35 year old is when I am learning that it is ok to be more flexible. Their age also allows for this flexibility because when they were little I was so worried if they were happy and about their rhythms – that was my priority. Technology is great with all this, for example I have a laptop and I bring it home during the weekend and I am able to answer e-mails which saves me time and the mobile phone also allows me to manage my family life more effectively.
(Sara, 35 year-old, social worker, married, mother of two children)

I wake up at half past seven and it is time to take care of my son and go to work. I have a long lunch hour, which allows me to go shopping. I get out of work at half past five and it is time for my son. I feel I should have more time for myself, to do sports. At the weekends and before I had a son we did

not use to have pre-scheduled programs but now my biggest worry is to think of activities for my son. Sometimes while he is asleep I go up to the computer but it is been a long time since we have gone to see a movie. Sometimes I use the computer to reach to people because when we have kids there is not much time to be with people. The mobile phone is also good to reach people. (Sílvia, 29 year-old, nurse, married, mother of an infant)

This pattern also has an impact on women's use of mobile entertainment services or contents. With less time to play and a lower sense of entitlement, women rarely use entertainment services such as music or games. Women only reported these uses, in the interviews in the initial life stages, dependent and young independent, and women in advanced life stages such as mature independent and empty nesters without the responsibility of taking care of grandchildren.

3.5. Conclusion

The mobile phone perfectly embodies "life in the fast lane" (Wajcman, Bittman, & Brown, 2008b) and life sure runs fast for women. Women's time is constrained by gendered domestic division of labour where women are still perceived to have the sole or main responsibility for household work and family care giving and management. This trait especially burdens mothers in dual earning households but is also extended into later life stages such as empty nesters with grandchildren to take care off. Women's time is also not theirs, their rhythms are dictated by others, by others needs. The labour of love consumes so much time that women are left with no time to play and sense that they do not own their time and it adds to the unpredictability. Women recall never knowing when they might be summoned to solve a family problem, big or small and the sense of anxiety that brings into their lives. So it is not unexpected to find out that women crave more time, especially more time for themselves, for their personal development, for leisure, "to be able to read a book without falling fast asleep" as expressed by a mother of two small children that wakes up earlier than the rest of the family to get the housework done.

In this context of “temporal crisis” many address the mobile phone as a tool of acceleration that would increase pressure on an already stressful environment. Nevertheless what our interviews have shown once again is that the nature of a technology or an artefact can only be understood in the co-construction with user and context. Women have shown a clear agency in the use of the mobile phone. Experiences vary across life stages in accordance with different time needs but what they have in common is that the mobile phone was incorporated into their lives as a tool for the management of their interactions with family and friends and for the micro-coordination of their everyday lives. The first time constraints begin in the young independent phase when young women start to work and feel the pressure of having their days filled with work related tasks. The pressure at this stage mostly comes from the need to continue the connection to their network of friends and also to keep up with the expectations of being a young woman. At this stage women are confronted with the fact that it is “not easy being a princess” as explained by a young marketing manager when she talks about how sometimes is hard to take care of your looks, keep up with the hard work to progress in the career and still have time for friends and family. For these women the mobile phone is a tool for social management, for keeping up with friend’s lives, a connection to the outside world. When women progress to the nesting life stage the division of domestic labour starts to press on women’s time. Even in young couples there is still a traditional gendered pattern in housework division. Women also become the managers for the social and family life of the couple. At this stage the mobile phone starts to be a useful micro-coordination tool. This trend will accentuate when women become mothers. For mothers the mobile phone is also an electronic leash for their children and, with decreased opportunities for personal contact, their own umbilical cord to the world outside their job or home. This role of the mobile phone can extend to the empty nest stage, especially when women have to take care of their grandchildren. Time pressure is even more acute in sole caregivers. As for mature independent the pattern of usage seems closer to the young independent, with the exception for increased responsibility for elderly members of the family, like aging parents or sick relatives.

The mobile phone instead of adding more pressure, or of intruding into personal and family time, it rather seems to enable women to better control their lives, to reduce the

anxiety of the unpredictable by enabling them to always be at reach, providing them with flexibility.

4. Engendering Techno-Fragility

Au contraire de la fragilité, la fermeté, l'assurance, la maîtrise, l'indépendance, la liberté, la force, toutes valeurs que l'on estime viriles (la fragilité étant femme, selon nos valeurs traditionnelles), et que l'on peut attribuer à l'homme moderne. (...) Dans ce contexte, toute fragilité devient une faiblesse. Il y a une façon de sortir de ce piège : c'est de ne pas confondre faiblesse et fragilité. De la fragilité, on peut dire qu'elle consiste à se défaire de son armure, à prendre le risque d'ôter des protections, pourtant nécessaires, pour accepter d'être sensible ; accepter d'être atteint par autrui comme par les différents événements de la vie, voire à être défait pour un temps.(...) Notre fragilité fait notre force.

(Liaudet, 2007)

The ability to create and engage with technologies is a trait that defines us as human beings. There is nothing inherently new in the technological revolution we are living except the growing speed of change that makes new technologies more visible and more widespread (Ganito, 2007c). The time to reflect and ponder on their consequences is scarce and that brings a sense of insecurity and loss of control, of vulnerability. But, if we take fragility as presented by Liaudet, as an acceptance of change, of our own condition, of our own difference, that would allow us a deeper understanding of our relationship with the material world and to perceive the “fragile dimension of hegemonic and permanent theoretical frameworks” (I. C. Gil, 2009). One of the frameworks that guide our understanding of gender is that of stereotypes. Can women, through the mobile phone, build a more intimate relationship with technology subverting traditional gender-role stereotypes?

Mobile phones are a privileged site to disclose change and the fragility of frameworks about gender. The mobile phone is both a fragile product and produces social fragility because we constantly redefine and are redefined by the technology we create. McLuhan designates this phenomenon as “feedforward” (McLuhan, 1964).

4.1. Stereotypes old and new

Relationships are made of talk - and talk is for girls and women.

Deborah Tannen

The concept of stereotypes was introduced in the social sciences in 1922 by Walter Lippman that used it to describe the typical image that comes to mind when we think about a specific social group introduced the concept of stereotypes in the social sciences in 1922. Stereotyping is a cognitive process of simplification, of building a category to frame reality and process information (Gilman, 1985). Stereotypes are necessary ways to make sense of the world: “The real environment is too big, too complex and too mutable to have a direct knowledge. We have to reconstruct it in a model that is simpler so that we can manage it. To cross the world, men need maps” (Lippman, 1922: 81). Besides they’re cognitive and social dimensions stereotypes also have a political function, they are not neutral:

Stereotyping, in other words, is part of the maintenance of social and symbolic order. It sets up a symbolic frontier between the ‘normal’ and the ‘deviant’, the ‘normal’ and the ‘pathological’, the ‘acceptable’ and the ‘unacceptable’, what ‘belongs’ and what does not or is ‘Other’, between ‘insiders’ and ‘outsiders’, Us and Them – ‘the Others’ (Hall, 1997b: 258).

Stereotyping is connected to inequalities of power and that is the case of gender. Khan uses the concept ‘sex stereotypes’, which she defines as “a cognitive structure of inferential relations that link personal attributes, behaviors and beliefs to the social categories male and female” (Khan 1996; 6). Chang and Hitchon propose the idea of ‘gender schemas’ to refer to the conceptual cognitive structure people use to understand “traits, activities and behaviours traditionally associated with men or women” (Chang and Hitchon 1997, p. 35). But the development of gender stereotypes owes much to the feminist movements; becoming the target of a growing interest in the sixties. There was an idea of an essentialist identity, typically distorted by the media that transmitted “false” stereotypes of women. According to the American social psychology movement gender stereotypes are a structured set of beliefs about the attributes of men and women (Ashmore & del boca, 1979), they have a cognitive function. For Social Identity Theory

(Tajfel, 1981) gender stereotypes have a social function, they are idealizations of behaviors and actions of social groups, men and women, that translate into a, socially shared, subjective representation of an order of relations between those groups, an asymmetric order, where the masculine stereotype is associated to instrumentality, dynamism, dominance, autonomy and more social desirability, while the feminine stereotype is associated to passivity, submission, dependency and expression of emotions and feelings towards others:

Patriarchy is responsible for constructing a social system, which ascribes a particular sexual status, role and temperament for each gender, hence ensuring the sex/gender hierarchy. As a result, “masculine” traits are attributed to dominant social roles while “feminine” is associated with submission and dependence (Jenainati & Groves, 2007: 118).

This conception of the feminine can be translated into the construct of a fragile gender. Media are traditional vehicles of this image of fragility. Gaye Tuchman (1978) analyzed media representations of American women and found that women were stereotyped as sexful objects, housewives or in domestic or caring jobs. She connected the notion of stereotype with the notion of “symbolic annihilation of women”, meaning that culture production and media representations ignored, excluded, marginalized and trivialized women and their interests. Tuchman took the concept further and did not limit the concept of stereotype to a false image or a distortion of reality; she tried to understand the whole process of representation as definitely marked by gender stereotypes that are one of our starting points to understand the world. According to Stuart Hall (1997a) representation is a process to construct meaning that is historically and socially constituted. Technology is increasingly a crucial part of this process.

The traditional representation of women’s use of technology is that they are neither interested nor capable in the field of technology:

Technical ignorance as a form of worldly ignorance was a virtue of “good” women, as they invariably were in the professional literature (...) Unlike men, women in the stories related by professional journals rarely learned from their mistakes in using technology, or corrected their misconceptions. They were sheltered from all such practical demands by an old and sturdy code of chivalry that required the protection of their ignorance by men. Beneath this habit of indulgence was the more important and even insistent point that women's use of men's technology would come to no good end (Marvin, 1998: 23).

So to appeal to women those technologies that address them specifically are defined as non-technological or are embedded with the codes of femininity that would make them non threatening at the eyes of the female consumer. This process is what Ellen van Oost designates as “Gender Scripts”⁵⁸. Mobile phone companies also seem to design phones to match the traditional female and the male cultures (Skog, 2002). But, building on the theory of the social shaping of technology, when technologies change or emerge “we can expect contest over social categories such as gender” (Lerman, Oldenziel, & Mohun, 2003b). The mobile phone can also create new meanings and be used to subvert dominant cultural paradigms such as in Japan where young girls use the mobile phone to challenge masculine culture in public places: “Through their tactics of play, colorful dress, and mobile phone usage, they fight the hegemony of older men on subways, and in doing so produce space for themselves” (Stenson, 2006). Gender boundaries are not only being crossed but also being blurred - mobile phones are a fragile technology that makes gender stereotypes fragile. Through the mobile phone women are building a more intimate relationship with technology, they are learning to accept new media, they are becoming producers and they are performing new cultural meanings. Being a hybrid, between public and private, it attenuates women’s resistance to building a closer relationship to technology.

The degendering of society, an the consequent end of gender stereotypes, has been advocated by authors such as Judith Lorber (Lorber, 2005). She has argued that degendering would reduce gender inequality by eliminating differences. The problem with the argument is that without differences we would have to be the same and this would undoubtedly mean the imposition of a hegemonic truth. Accentuating differences not only between men and women but also between women, as we are doing in this thesis, will allow a better understanding of different needs and how to address them because “just as we know that sameness doesn’t automatically lead to equality, so, too, is difference not necessarily incompatible with it” (Kimmel, 2007: 340).

Androgyny has also been argued as a solution for inequality in the very same sense that degendering. Men and women when adopting attitudes and behaviors considered

⁵⁸ “Gender Scripts” is an analytical tool that adds the gender dimension to the concept of “Script” (Akrich, 1992, 1995). It is grounded on the conception that the user and its context are embedded by designers in technological objects. The concept does not imply a deterministic stand, nevertheless gender scripts “act invitingly and / or inhibitantly” (Oost, 2003:196).

inherent to the opposite gender become post-colonial entities whose behavior only mimics the colonialist discourse⁵⁹. If mimicry can be understood as subversion, it also poses the danger of reinforcing the hegemonic discourse, leaving no space for different identities to submerge. Homi Bhabha and Luce Irigaray see in mimesis a force of resistance but “in mimicking the language of the dominant, how can we guarantee that mimicry is *understood* as ironic – as civil disobedience, camp, or feminist difference rather than as merely derivative?” (Showalter, 1997: 230). Instead embracing differences and change means that “the pace of that change might accelerate if we continue to degender traits and not people [thus] we will still be women and men, equal yet capable of appreciating our differences, different yet unwilling to use those differences as the basis for discrimination” (Kimmel, 2007: 342). The women interviewed showed many differences in their lives and in their approaches to technology and the mobile phone. Sometimes the mobile phone is the site where that fragility is located, other times is a tool to surpass or transform the fragilities of women’s lives. Not acknowledge these differences would be to accept women’s passivity and a full acceptance of the dominant gender stereotypes in much the same way as the first wave of feminist media studies established a direct link between media representations and gender inequality in the assumption that audiences were passive. But the “effects of new technologies are not direct, but negotiated through people’s construction and use of them” (Humphreys, 2005: 811). Instead we argue that meanings can be negotiated or refused, that women have “agency”⁶⁰.

⁵⁹ We are drawing a relationship of women and gender to colonization and using the concept of mimicry in the scope of Homi Bhabha (2004) from whom “mimicry is the sign of double articulation; a complex strategy of reform, regulation, and discipline, which “appropriates” the Other as it visualizes power. Mimicry is also the sign of the inappropriate, however, a difference or recalcitrance which coheres the dominante strategic function of colonial power, intensifies surveillance, and poses an immanent threat to both ‘normalized’ knowledges and disciplinary powers” (280).

⁶⁰ Agency is a central and controversial term in feminist theory. The founding vision of women as victims has led to a denial of agency. Recently the concept has been articulated with the concept of “difference”. Lata Mani comments: “The discourse of woman as victim has been invaluable to feminism in pointing to the systematic character of gender domination. But if not employed with care, or in conjunction with a dynamic concept of agency, it leaves us with reductive representations of women as primarily beings who are passive and acted upon (...) structures of domination are best understood if we can grasp how we remain agents in the moments in which we are being intimately, viciously oppressed” (Mani, 1992). Articulating agency and difference also implies the end of a dualism or dichotomous thinking about gender, which is the root of gender stereotypes.

4.2. Mobile Fragilities

(...) Rien de défini chez l'homme. C'est un être incomplet, une ébauche d'être vivant bien constitué. C'est cette incomplétude qui fait sa chance. Parce que nous ne sommes pas équipés pour vivre dans un milieu particulier, nous sommes capables de nous adapter à tous. Dépourvus de schémas de comportements prémontés, nous sommes voués à être libres et à devoir apprendre. Démunis des outils naturels que sont les crocs et les griffes, associés aux comportements instinctuels, il nous a fallu développer des prothèses pour pouvoir survivre.

(Liaudet, 2007: 17-18)

Although in cybernetic studies we talk of a post-human era, we cannot forget that the creation and incorporation of technology have always been characteristics of our species. Thus we argue that the current transformations that we see on our daily lives are no more than the consequences of the co-construction of society and technology, even though its nature can be described as revolutionary. Mobile phones are the most recent example of these transformations; they are places of acting, of transgression and transformation. They present themselves as new human prosthetics, extensions of our identities, of our [gendered] bodies (Ganito, 2007c), tools to overcome our fragile human condition.

In the first two life-stages, young dependent and young independent, women are still looking for their place in the world of adults and independent people, they are striving to take their career off the ground and to gain or consolidate their full independence. So we might argue that identity is their fragility. Technology and mobile phones in particular, because they are highly personal objects, can perform that function. But their fragility is also that they searching for a place in the workforce and they tend to mimic the hegemonic discourse by adopting technology through a degendering process, not accordingly to their personal tastes but instead conforming to the aesthetics of the male standard.

When women enter the nesting phase traditional gender roles start to settle in, and they also apply to technology. For nesting women their main fragilities are their disregard for gender discrimination and the growing distance from their networks of friends and

family that isolate them. The mobile phone is then used as a personal productivity tool in adapting to new routines and a gender based division of labor but also a touch point with the now “distant” family and friends. This sense of being out of touch and the use of the mobile phone to reduce this anxiety is put forward by Catarina: “It is the closest physical thing to me. If I had to be without it things could happen and I would not know about them” (Catarina, 31 year-old, teacher, nesting). Nesting women have also lost some of their former interest for social networking but they assume the role of social coordinators for the couple.

With motherhood the gender-based division of labor is reinforced and thus for mothers the fragility comes from the isolation of the first months or years of motherhood and the burden of responsibility as their kids grow up. Women are left with little or no space for self-expression or caring for themselves. For women that are mothers the mobile phone is an electronic leash or a replacement of their physical presence but also their own umbilical cord to the world. From the women interviewed Carla D. is one of the most extreme examples of this role for mobile phones as she is a very recent mother with her child being extremely dependent and has also been unemployed prior to giving birth: “Now with the baby I cannot leave home without it. Nothing can happen and the mobile is my way to call for help if necessary” (Carla D., 34 year-old, unemployed marketing manager, married, mother of a toddler). The mobile phone brings reassurance and a leisured break from their routines.

The task is even harder for sole caregivers. These women do not have a partner to share responsibilities. But their fragility, as proposed by Liadet is also their strength, as they are forced to perform the technical and technological tasks formerly attributed to the men in their lives. The mobile phone becomes a blend between remote mothering and social networking as explained by Cecília when she talk about the role mobile phones have in her life: “I call my son all the time to know where he is and what he is doing (...) I always have to be reachable for my family and work” (Cecília, 46 year-old, human resource technician, divorced, mother of a teenager, sole care giver)..

Mature independent women, much like the young independent, are very career oriented. Their fragility comes from a certain level of social criticism regarding the way they chose to live their lives. The mobile phone for them is mainly a social networking tool that allows them to be available for social interaction and autonomy. One of the solo women interviewed expressed the role of the mobile phone in her life: “I cannot leave

hole without it. I like to be available whenever my friends decide to invite me” (Carla P. 30 year-old, tourism agent, separated, mature independent).

Finally for the empty nesters their fragility originates mainly on their own biological aging process that sometimes also leads to isolation. For them the mobile phone means safety and a lifeline to the outside world as well expressed in the words of Fátima: “I feel naked without it (...) it is always in my pocket and goes with me everywhere (...) It is how I keep in touch and it is safety, now even more” (Fátima 2, 56 year-old, retired insurance professional, married, and grandmother of one, empty-nester). It is also a source of entertainment and leisure when combined with low Internet usage or lack of Internet skills.

4.3. Conclusion

*C'est pourquoi nous sacrifions au mythe de la maîtrise en tout et sur tout:
il nous faut être puissants, jouissants, jeunes. Cet idéal du moi
individualiste est féroce, car il méconnaît notre nature profonde, et nous
oblige à jouer à contre-emploi. C'est-à-dire à arborer un faux moi, à croire
et à faire croire que nous sommes ce que nous ne sommes pas
(du moins pas entièrement) et à nous situer dans un porte-à-faux
inconfortable et risqué*

(Liaudet, 2007: 9).

Using the lenses of fragility means accepting that our tools for reading the world no longer provide accurate guidance. Our maps based on dichotomies have failed us. We need new maps based on differences that are multiple and non hierarchical.

Understanding differences also means understanding women's agency, how they appropriate technology, such as the mobile phone, to overcome their specific fragilities. Addressing women and empowering them means, from this viewpoint, offering them tools, designs, contents, services that go further than a re-enactment of the hegemonic discourse. We have to “position ourselves as travelers through hostile landscapes, armed

with maps of our own making, following paths that are often evident only to our own eyes” (Braidotti, 1994: 172).

Throughout their life stages, women face different challenges and needs that are expressed in different relationships with technology. It is not a linear progression but instead is related to their “situated knowledges” and specific locations. Each woman tells a different story, has a different voice. The question is if someone is listening.

Conclusion: Mobilities and Imobilities in the Gendering of the Mobile Phone

Becoming entitled to mobility is a superb achievement for women.

Rosi Braidotti (1994: 256)

Women have historically been described as immobile, as passive, dependent on others to move for them. The right to move around is one of the conquests of the feminist movements and of women. Women seem to deny a reading of immobility but in fact much in their lives is still static, of which the division of labor is one example. Women have conquered mobility in so many different ways: they are space and time invaders, they are able to express their individuality and creativity, but they are still constrained by their own inability to acknowledge the backlash of their achievements.

This thesis brought women to the forefront of the discussion of the uses and affordances of the mobile phone and, building on the concept of cultural studies of mobile communications (Goggin, 2008), introduced the idea of feminist cultural studies as a conceptual lens through which to focus on mobile communications.

1. Discussion of findings

A striking finding in our research was that the trajectory of the mobile phone across life-stages does not have an expected diffusion curve (Christensen, 1997, 2004; Moore, 2002; Rogers, 1962). If it is true that young women show a higher pre-disposition to a more diversified and intense use of the mobile phone, older women do not always correspond to the stereotype of lack of interest or skills, on the contrary the mobile phone seems to play a very important role in many of these older women's lives.

Contrary to the theory that "gender differences tend to disappear with the increase of mobile penetration rates" (Castells, et al., 2004a: 52), we found that in Portugal, a country with the highest penetration rates in Europe, the mobile phone has different roles and affordances throughout women's life courses, so rather than finding a dominant use, what we found is that "the effects of new technologies are not direct, but negotiated through people's construction and use of them (Humphreys, 2005: 811). So

for single and dependent women the mobile phone is a tool for social networking and autonomy. For these women the choice of mobile phone is still free from professional constraints and only hampered by money limitations. Their socio-technical environment is very complex and the mobile phone is an important part of that environment, a constant presence that enables them to articulate their activities and a connector between media uses as clearly expressed by Raquel: “I only do not use it when I am asleep. During classes I keep it on vibrating mode and I keep looking at it to see what is going on”.

When women progress to the next life stage of young independent the marker in their life is finding and succeeding at an occupation, they want to project an independent and professional image and that has an impact on their use and choice of mobile phones that become a blend of social networking and professional tool as explained by Inês about her choice for a mobile phone: “I choose a Blackberry Curve because I talk with my friends on the messenger [...] I did not choose a pink one because I would not be taken seriously”.

As women enter the nesting phase they begin to lose their interest for social networking, although they take up the role of social coordinators for the couple, and they are faced with new challenges to their daily lives that lead them to settle into a traditional gender-role relation with technology. Upon deciding the division of tasks, technology tends to fall on men even when women are very technological proficient. For these women the mobile phone becomes a personal productivity tool, a way to cope with the new routines. Catarina expressed this change in her life: “It is the closest physical thing to me. If I had to be without it things could happen and I would not know about it”. The mobile phone functions as a surrogate

The next two life stages are the ones most demanding on women's time. For mothers crushed between the responsibilities of care giving and full time jobs, craving time and balance between professional and personal life, always feeling guilty for their absence the mobile phone is an electronic leash or remote mothering tool, a replacement of their physical presence, a form of coordinating their endless list of tasks. Single mothers express the same concerns and affordances but they add a component of social networking. Single mothers feel especially isolated, if they are divorced, in a portion of the week they have to come home to an empty house so the mobile phone becomes their connection to the world because these women are also highly time

constrained. They are looking for no frills and no time consuming technologies and thus also have low levels of media consumption. The remote mothering affordance is well described by Cecília, one of the single mothers with a pre-teen son: “I call him all the time to know where he is and what he is doing”. In the stage of mature independent the irregular trajectory of the mobile phone becomes very clear. These women, some even above the age of 50, use the mobile phone in much the same way a young independent would use it; the mobile phone becomes again a social networking tool. Carla, one of the younger mature independent explains this instrumental use in her availability: “I cannot leave home without it. I like spontaneous social programs and I like to be available whenever my new friends decide to invite me”. Finally the empty nesters from whom the mobile phone brings a diversified set of affordances: safety, connection with the outside world, entertainment. These women even show a high usage rate and leisure practices when combined with low or lack of Internet skills. Fátima is one of the best examples of the deep connection that empty nesters can have with the mobile phone: “I feel naked without it (...) It is always in my pocket and goes with me everywhere (...) It is how I kept in touch and it is safety, now even more”. We couldn’t help but notice the resemblance between Fátima’s discourse and Raquel’s.

What is transversal to all these women is that the mobile phone is always the most private and personal technology they use or own. They also show a high degree of dependency across life stages although, as we have seen, the underlying reasons for that dependency may vary. Although very private there is a low level of personal choice and of customization due to the “wife-phone” and “job phone” effects, meaning that women get their mobile phones as offers from husbands, boyfriends, parents, sometimes as a second-hand device, or they are entitled to one in their job, so although the use is private, the device itself is not felt as private. This is where the specificities of the Portuguese case become striking. If on one hand the high rate of full time employed women grants them an easier entry into the world of mobile communications, of more sophisticated devices, on the other it limits their gender performance, it constrains the personalization and creativity.

Mobile camera phones have also provided new affordances to women, they are especially valued by mothers, single mothers and mature independent. The mobile phone can offer another site to “capture, share and archive the digital representations of experiences (...) new modes of engagement with cultural traditional and ritual

pertaining to the act of remembrance” (Keep, 2009: 61). The camera feature of mobile phones offers women a low skill, always at hand solution for their everyday needs. For older women it is sometimes hard to learn to work with a new camera and for mothers that have to deal with a lot of unexpected situations it is a always ready technology, that it is already there in their bags, and not another item in their, already overfull, checklists. But the promises of unbound sharing, like the ones presented in some mobile phone commercials, have yet to be fulfilled. Contrary to some beliefs (Keep, 2009) remembrance is still bound by constraints of time, place and gender, thus the level of MMS use is still very low and even lower for video calls.

As embodied objects mobile phones are part of very complex power relationships related to the presence or invisibility of certain places such as our streets, our homes and our offices. When we looked into how the mobile phone affected women’s experience of moving in space and in place we concluded that there is no single answer: Women’s choices can be an option to conform to the masculine norm, of abiding “gender scripts”; a form of using femininity as a masque against retaliation or of disguising power uses of technology that would confront men; or as a self-expression of their individual personalities. Once again the mobile phone serves multiple purposes: as a defence mechanism, to legitimate women’s public presence or to subvert traditional meanings. In Portuguese society, where women seem to deny their own immobility the subversion of traditional meanings is not as marked as in other cultures as Korea but some examples do exist. The population we studied, an urban one, is also less in need of such an use of a technological tool but nevertheless women recognize how the mobile phone empowers them by providing a safety that and allowing freedom of movements like driving through a bad neighbourhood alone not being afraid of being stranded, or arriving home late and walking home alone. The mobile phone is a safety line that allows them to perform tasks for which they would formerly require or perceive as requiring the company of a man.

The mobile phone provides women with freedom to move around and freedom to manage their time. Time is the best example of how women have moved so much and at the same time, stand so still. Women live “in the fast lane” (Wajcman, Bittman, et al., 2008b) and the accounts of daily routines of the women we interviewed are a vivid example of competing priorities, of juggling spheres, due to women’s professional commitments. But women’s time is constrained by gendered domestic division of

labour where women are still perceived to have the sole or main responsibility for household work and family care giving and management. This trait especially burdens mothers in dual earning households but is also extended into later life stages such as empty nesters with grandchildren to take care off. Women's time is also not theirs, their rhythms are dictated by others, by others' needs. In this context of "temporal crisis" many address the mobile phone as a tool of acceleration that would increase pressure on an already stressful environment. Nevertheless what our interviews have shown once again is that the nature of a technology or an artefact can only be understood in the co-construction with user and context. Women have shown a clear agency in the use of the mobile phone. Experiences vary across life stages in accordance with different time needs but what they have in common is that the mobile phone was incorporated into their lives as a tool for the management of their interactions with family and friends and for the micro-coordination of their everyday lives. The mobile phone instead of adding more pressure, or of intruding into personal and family time, it rather seems to enable women to better control their lives, to reduce the anxiety of the unpredictable by enabling them to always be at reach, providing them with flexibility.

Our last research question was if women could, by means of the mobile phone, build a more intimate relationship with technology subverting traditional gender-role stereotypes. To answer this question we proposed to use the lens of fragility and what we could conclude is that our maps are failing us; they are themselves fragile constructions that no longer provide adequate guidance. But companies still rely on those maps, on stereotypes; to define their strategies and the way they address women. Addressing women and empowering them means, from this viewpoint, offering them tools, designs, contents, services that go further than a re-enactment of the hegemonic discourse. Women do in fact have a very intimate relationship with the mobile phone and with the convergence of so many other media in the same device we could be facing a huge opportunity to change the stereotype of female technological incompetence but that requires much more than a pink phone.

2. Implications for the industry

From a broader perspective, this study has implications for service design and technical communication pedagogy by urging the industry to move from a functional perspective to a broad socio-cultural perspective, and to develop information products that resonate with women's' lifestyles:

Solving women's problems will take a large-scale public policy agenda that would include a proactive plan for the development of new communication technologies that would benefit women, rather than a post hoc transfer of technologies to women when certain groups of women present a lucrative market for the industry (L. Rakow & Navarro, 1993: 155).

Women have been neglected as innovators when in fact they have played an important role in the adoption and dissemination of many technologies, namely the telephone. Authors like Claude Fischer (Fischer, 1988a) and Michèle Martin (Martin, 1991, 1998) drew attention to the use women gave the telephone; a use that was unexpected and even condemned by the industry that conceived the telephone mainly as a business instrument. But in spite of former mistakes, the industry repeated the same strategy for the mobile phone: "It's as if the mobile operators have forgotten the rather significant fact that half their mobile users are women that want mobile services that are not targeted towards men" (StrandConsult, 2005). The mobile industry rests on a high penetration rate but market share does equate with share of wallet: "For a technology to evolve and become better adapted to its users needs and even more important to their social and economic development, something more than mere adoption is needed" (Bar, 2007: 2). Women might be 50% of the customer base but they are an underserved market (Silverstein & Sayre, 2009a) .

Women don't want a product that looks stereotypically feminine but on the other hand they don't expect the same product targeted for men. Apple seems to have found the formula for a balanced strategy with all the women interviewed finding the iPhone the most attractive device. The iPhone does not offer pink coloring but instead a user-friendly interface, a big screen for picture showing and an attractive design.

If it is true that women many times seem less interested it is because they either don't feel they are the target of the communication or because they simply don't have the time. Time constraints are a particularly heavy burden for women throughout their adult

life course but especially when they become mothers. Some companies claim to have a strategy to approach women but cute and pink do not solve women's problems or address their needs such as that of time saving or enabling them to manage their conflicting priorities such as balancing work and family life. Companies have to tap into their female consumers and that means doing market research that goes beyond differences between men and women, otherwise the end result will be to treat women as an homogeneous group which could not be further from the truth.

Companies continue to resort to pre-conceived ideas, dismissed throughout our research, that women lack interest for technology and technical skills. Women should not be targeted with downgraded male products as if they were less skilled or less competent. Women want things that work, that solve their problems, less unnecessary features and more added value (Parmar, 2007a). It also means finding more than a "one size fits all" solution. Women should be differentiated according to their real needs, uses and characteristics. For the mobile phone it means providing solutions for women's needs throughout their life courses. Solutions centered on social networking and autonomy for young women, safety and control for mothers, accessibility for mature independent, a blend of accessibility and control for single mother and a mix of autonomy, safety and reachability for empty nesters. Services and products should be designed based on these needs and expectations and not on outdated and misconceived marketing narratives.

3. Future Research

*Caminante no hay camino,
se hace camino al andar...*

Antonio Machado (1875-1939)

To do a research is a path fraught with hard choices and the painful realization that to include is to exclude. Our methodological option was to learn about women from women, to give them voice, to get insights from their discourse, thus we used a dominant qualitative research design. In the absence of an accurate portrait of the

relationship of women with technology it would be interesting to provide an extensive analysis through a quantitative survey based on a life-stage approach. This would provide the industry with the tools to leverage their marketing and sales efforts. It would also be interesting to compare men and women's life-stages and life courses and understand the differences in touch-points with technology and the difference in affordances at each life stage. This could serve as a basis for the definition of better gender politics in schools, companies and society at large.

A search for knowledge is always an ongoing conversation. Research is never finished, especially in the field of new media where our research object is always a fast moving target, constantly changing and transforming. Thus, as we moved along our path, some avenues became visible as deserving future study. One of those areas is the interconnection between technologies, and the negotiations that take place in networks that are increasingly complex:

There is ample scope for more empirical research on the gender relations of ICTs. Just as gender relations are transforming, so ICTs themselves are changing and evolving over time. This will be ever more so as computing becomes ubiquitous, with digital devices increasingly embedded into everyday things and objects, part of our taken-for-granted environment and even ourselves. A focus on studying sociotechnical networks or systems, instead of singular technologies, will then be increasingly necessary (Wajcman, 2007: 296).

As suggested by Judy Wajcman, it would be interesting to study the mobile phone as part of a specific socio-technical system, specially its articulation with the Internet. One of the conclusions we could draw, from the interviews, is that the mobile phone seemed to be more important for the women that did not know how to use the computer or did not have one at hand. The best example was the two empty nest women, Fátima and Maria. Fátima has no Internet skills and she does use a computer regularly so for her the mobile phone is like a second skin, she always carries it with her, but that is not the case for Maria who has a high usage of Internet resources and regular computer use. For Maria the mobile phone is not an important part of her life because she relies on other sources of entertainment, information and connection. The same phenomenon seems to occur with the availability of other resources for communication: when women have a very stable routine, constant access to Internet and perform their job in a single constant location their dependency on the mobile phone also decreases. Further more with the

increasing integration of mobile and Internet it will be necessary to look at the mobile phone use from the scope of post-convergence theories.

With increasing penetration rates the mobile phone is becoming a ubiquitous technology and, in western countries, one of the most promising segments is the aging population. Women live longer and thus specifically studying older women and their relation with technologies at large and mobile phones in particular could not only provide useful insights for the industry but also help define policies and strategies to improve their lives. We have found their uses and practices to be diversified and they show a high level of interest for learning more and for acquiring more skills, but they lack an adequate offer.

Another avenue of transformation that deserves close scrutiny is what has been called the “iPhone effect” that seems to be changing the dynamics of the mobile communications industry by introducing an application based economy. The iPhone also brings with it a special appeal to the female market because of its user-friendly interface and sleek design enabling women to look at smartphones as value added devices. As the rate of smartphones steadily increases it will be interesting to track what Thomson has called the “death of the phone call” (Thompson, 2010). He describes how the voice call is being replaced by other means of communication that enable a higher degree of control. For Thomson “these new forms of communication have exposed the fact that the voice call is badly designed. It deserves to die”. But for now voice is still the killer app for the industry and the penetration rate of smartphones among women is still low, it would be interesting to understand if adoption rates would increase if smartphones were promoted as tools for control and autonomy, instead of being promoted as gadgets.

Both Portugal and the mobile phone have fallen victims in the past to the hegemony of larger countries or larger screens such as the computers or the television that have rendered them invisible to the academic research. We hope to have laid the ground for future cross-cultural work using the lenses of feminist cultural studies to study mobile communications around the world. Contrary to a theory of *apparatgeist* we contend that future analysis should always be grounded and situated, without obliterating differences and complexity and without obscuring the smaller objects vis-à-vis the larger ones.

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ANNEX A – Relevant Work

List of relevant work conducted during the doctoral program (2007-2010) with direct relevance to the thesis.

Books and Book Chapters:

- Geneve, A., & Ganito, C. (2010). Women and Technology: 'Five Acts of Digital Agency'. In D. Araya, Y. Breindl & T. J. Houghton (Eds.), *Nexus: New Intersections in Internet Research* (pp. 13-33). Oxford: Peter Lang;
- (2010). Mulheres móveis: O telemóvel como “tecnologia de género”. In I. C. Gil & M. C. Pimentel (Eds.), *Simone de Beauvoir. Olhares sobre a Mulher e o Feminino* (pp. 243-254). Lisbon: Nova Vaga [Women on the move. The Mobile Phone as a “Gender Technology”];
- (2010). As mulheres e o "Império". Uma leitura crítica feminista. . In I. E. Vieira, J. Alfaro & M. d. A. Guincho (Eds.), *"Partíamos como se não Fossemos". Homenagem a Horácio Peixoto De Araújo* (pp. 145-151). Lisbon: Bond [Women and the “Empire”. A critical feminist reading];
- (2007). *O Telemóvel como Entretenimento: O Impacto da Mobilidade na Indústria de Conteúdos em Portugal*. Lisbon: Paulus [The Mobile Phone as Entertainment. The Impact of Mobility in the Portuguese Content Industry];

Papers and Book Reviews:

- (2010). Women on the Move: the Mobile Phone as a Gender Technology *Comunicação & Cultura*, 9 (forthcoming).
- (2010). Rich LING (2008) New Tech, New Ties, How Mobile Communication is Reshaping Social Cohesion. [Book Review]. *Media & Jornalismo*, 8(3);
- (2009). David Gantlett (2008). Media, Gender and Identity. An Introduction. [Book Review]. *Media & Jornalismo*, 15(2), 143-145;

- (2007). As mulheres e os telemóveis: uma relação por explorar. *Comunicação&Cultura* (3), 41-58 [Women and Mobile Phones: A relationship still to be explored];
- (2007). Comunidade e Mobilidade. [Editorial]. *Comunicação & Cultura*, 3, 11-15 [Community and Mobility];

Conference Papers:

- Ganito, C., & Ferreira, C. (2010). "*Quantity and Quality: Patterns of Female Engagement with ICTs*". Paper presented at the Association of Internet Researchers Conference: Internet Research 11.0 – Sustainability, Participation, Action.
- Ganito, C., & Ferreira, C. (2010). *Scripting gender in mobile phones: How traditional gender stereotypes influence producers in the Portuguese mobile industry*. Paper presented at the Internet Research 11.0 – Sustainability, Participation, Action;
- Ganito, C., & Ferreira, C. (2010). *Mobile Family Frames: From the table album to the mobile phone*. Paper presented at the IAMCR Conference - Communication and Citizenship;
- (2010). *The mobile phone as a technology of "premediation"*. Paper presented at the International Conference: "The Arts of Mediation";
- Ganito, C., & Ferreira, C. (2009). *Mobile fragility: On women and the mobile phone*. Paper presented at the ICA Conference - Keywords in Communication;
- (2009). *Conquering Mobility: Women's space negotiations through the mobile phone*. Paper presented at the Congresso Internacional: "Género, Media e Espaço Público";
- (2008). *Moving Acts: Transforming Gender*. Paper presented at the 6th International Workshop on Phenomenology, Organization and Technology;

ANNEX B – Survey “A Sociedade em Rede em Portugal 2006”, Methodological Information

The quantitative data used in chapter 2 of Part II for the characterization of the Portuguese mobile society and for the quantitative analysis of differences between women comes from the “A Sociedade em Rede em Portugal 2006” survey, conceived by Gustavo Cardoso, Rita Espanha and Maria do Carmo Gomes. The survey is “based on directed interviews with a representative sample of the portuguese population, living in mainland Portugal, aged 8 and above, using INE's (National Statistics Institute) “Recenseamento Geral da População – Censos” (2001 General Population Census) results. Individuals were then selected through quotas arising from the joint consideration of their Gender, Age, Education, and Region, as well as Community Size. From an initial matrix considering Region and Community Size, a random number of locations was selected, to which the referred quotas were applied and the interviews conducted. The final sample amounted to 2000 interviews, with the fieldwork conducted by Metris GfK taking place between April and June 2006”. In the thesis two modules of the survey were used: the mobile phone and telephone module and the SMS module.

Mobile Phone / Telephone Module Questions

Q.35 – Please, tell us, do you have a mobile phone?

YES.....1 ⇒ **Q.36**

NO2 ⇒ **Q.38**

Q.36 – How many mobile phones do you have working at this moment?

(If the answer is “I DO NOT KNOW/ I PREFER NOT TO ANSWER”, REGISTER 99)

MOBILE PHONES NUMBER: ‘ ____ ’

Q.37 – Can you please tell us how old were you when you had your first mobile phone?

(If the answer is “I DO NOT KNOW/ I PREFER NOT TO ANSWER”, REGISTER 99)

AGE: ‘ ____ ’

Q.38 – How many mobile phones do you have at home, including the ones belonging to your family members? **(If the answer is “I DO NOT KNOW/ I PREFER NOT TO ANSWER”, REGISTER 99)**

MOBILE PHONES NUMBER: ‘ ____ ’

SEE Q.35 and Q.38

IF THE ANSWER IS “NO” IN Q.35 AND “NONE” IN Q.38 ⇒ GO TO THE BOX BEFORE Q.87

OTHERWISE ⇒ GO TO Q.39

Q.39 – Please, tell us: are they 3G mobile phones? **(READ AND REGISTER ONE ANSWER)**

- YES, 3G.....1
- NO, BUT IT HAS A LOT OF 3G FUNCTIONS.....2
- NO3
- I DO NOT KNOW WHAT THAT IS.....4
- I DO NOT KNOW/ I PREFER NOT TO ANSWER.....7

Q.40 – On average, what do you consider to be a reasonable price for a mobile phone?

(ATTENTION: REGISTER EUROS AND CENTS)

(IF THE ANSWER IS "I DO NOT KNOW/ I PREFER NOT TO ANSWER" REGISTER 999,99)

REASONABLE PRICE: '___' '___' '___', '___' '___' €

SEE Q.35

IF THE ANSWER IS NO IN Q.35 GO TO Q.48

OTHERWISE GO TO Q.41

Q.41 – Please, tell us which is your current mobile operator (if you have more than one, consider the one which you use the most):

- VODAFONE.....1
- OPTIMUS.....2
- TMN.....3
- UZO4
- REDE 4.....5
- ANOTHER ONE. WHICH ONE?6
- I DO NOT KNOW/ I PREFER NOT TO ANSWER.....7

Q.42 – Do you use more than one operator?

- YES1 ⇒ **Q.43**
- NO2 ⇒ **Q.44**
- I DO NOT KNOW/ I PREFER NOT TO ANSWER.....7 ⇒ **Q.44**

Q.43 – Please, tell us, which are those operators?

VODAFONE.....1
 OPTIMUS.....2
 TMN.....3
 UZO4
 REDE 4.....5
 ANOTHER ONE. WHICH ONE?6
 I DO NOT KNOW/ I PREFER NOT TO ANSWER.....7

Q.44 – Can you please tell us which is your price plan?

PRE-PAYED CARD.....1 ⇒ **Q.45**
 SIGNATURE2 ⇒ **Q.46**
 BUSINESS SIGNATURE.....3 ⇒ **Q.46**
 COMPANY PRICE PLAN.....4 ⇒ **Q.46**
 I DO NOT KNOW/ I PREFER NOT TO ANSWER.....7 ⇒ **Q.46**

Q.45 – On average, please tell us how many times do you charge your mobile phone credit per month?

(IF THE ANSWER IS "I DO NOT KNOW/ I PREFER NOT TO ANSWER", REGISTER 99)

AVERAGE NUMBER OF MONTHLY CHARGES: ' ____ ' ____ '

Q.46 – And, on average, how much do you spend with your mobile phone calls? **(ATTENTION: REGISTER IN EUROS AND CENTS)**

(IF THE ANSWER IS "I DO NOT KNOW/ I PREFER NOT TO ANSWER", REGISTER 999,99)

VALUE SPENT IN PHONE CALLS: ' ____ ' ____ ' ____ ' ____ ' €

Q.47 – How many calls do you usually make per day through your mobile phone?

(IF THE ANSWER IS "I DO NOT KNOW/ I PREFER NOT TO ANSWER", REGISTER 999)

USUAL PHONE CALLS NUMBER: ' ____ ' ____ ' ____ '

Q.48 – Can you please tell us if you have a telephone at your place?

Yes1 □ **Q.49**
 No2 □ **BOX BEFORE Q.50**

Q.49 – Which telephone operator are you using?

PT.....1
 NOVIS/HOME.....2
 TELE 2.....3
 AR TELECOM.....4
 I DO NOT KNOW/ I PREFER NOT TO ANSWER.....7

SEE Q.35

**IF THE ANSWER IS NO IN Q.35 □ GO TO THE BOX BEFORE Q.87
 OTHERWISE □ GO TO THE NEXT BOX**

SEE F.4 AND Q.48

**IF IN F.4 CODE "1" (WORKS) AND IN Q.48 CODE "1", ASK Q.50 TO THE Q.56
 IF IN F.4 CODE "1" (WORKS) AND IN Q.48 CODE "2", ASK Q.51, Q.53, Q.55 AND Q.56
 IF IN F.4 CODE "2" (DOESN'T WORK) AND IN Q.48 CODE "1", ASK Q.50, Q.52 AND Q.54
 IF IN F.4 CODE "2" (DOESN'T WORK) AND IN Q.48 CODE "2" □ GO TO Q.57**

Q.50 – Since you have a mobile phone, do you use the telephone more/less/ the same?
(REGISTER ONE ANSWER PER COLUMN)

Q.61 – Using a scale that goes from 1 to 4, in which 1 stands for “Never”, 2 for “Not very frequently”, 3 for “Frequently” and 4 for “Very frequently”, please tell us how often do you use your mobile phone for the following activities: **(SHOW LIST 2)**

(READ THE ANSWERING OPTIONS AND REGISTER ONE ANSWER PER LINE)

	Never	Not very frequently	Frequently	Very Frequently	I do not know/ I prefer not to answer
TO ARRANGE A DATE	1	2	3	4	7
TO KNOW WHERE YOUR KIDS/ PARENTS/ FAMILY MEMBERS ARE	1	2	3	4	7
TO KNOW WHERE YOUR OTHER RELATIVES ARE	1	2	3	4	7
TO KNOW IF SOMEONE HAS ALREADY ARRIVED TO A MEETING/ REUNION	1	2	3	4	7
SOLVE PROFESSIONAL ISSUES AND PROBLEMS	1	2	3	4	7
TO KNOW HOW YOUR RELATIVES/ FRIENDS ARE	1	2	3	4	7
TO INFORM SOMEONE YOU HAVE ARRIVED TO A MEETING/ REUNION	1	2	3	4	7
TO INFORM SOMEONE THAT YOU ARE LATE TO A MEETING/ REUNION	1	2	3	4	7
TO TALK TO FRIENDS, RELATIVES AND KNOWN PEOPLE WITHOUT A SPECIFIC PURPOSE	1	2	3	4	7
TO TALK ABOUT AFFECTION/ LOVE AFFAIRS	1	2	3	4	7

Q.62 – Suppose you didn’t have a mobile phone. Would still make the same calls through a telephone?
(Read)

YES, ALWAYS.....1
YES, BUT ONLY IF THE MAIN REASON FOR THE CALL WAS REALLY URGENT2
NO3
I DO NOT KNOW/ I PREFER NOT TO ANSWER.....7

Q.63 – Please tell us: do you usually ask other people to make some operations related with the mobile phone use for you? (Read)

YES, FREQUENTLY.....1 □ **Q.64**
YES, SOMETIMES.....2 □ **Q.64**
NO.....3 □ **Q.65**
I DO NOT KNOW/ I PREFER NOT TO ANSWER.....7 □ **Q.65**

Q.64 – What is the main operation you ask other people to help you with? (REGISTER ONLY ONE ANSWER)

TO CHARGE YOUR PRE-PAYED CARD.....1
TO WRITE/ SEND AND/OR READ/ERASE WRITTEN MESSAGES.....2
TO SOLVE PROBLEMS WITH THE EQUIPMENT3
TO CONFIGURE NEW EQUIPMENT (HEADPHONES, HANDS-FREE KIT).....4
ANOTHER ONE. WHICH ONE?8

Q.65 - Using a scale that goes from 1 to 4, in which 1 stands for “Never”, 2 for “Not very frequently”, 3 for “Frequently” and 4 for “Very frequently”, please tell us how often you use your mobile phone for the following activities: (SHOW LIST 2)

	NEVER	NOT VERY FREQUENTLY	FREQUENTLY	VERY FREQUENTLY	I do not know/ I prefer not to answer

News	1	2	3	4	7
Traffic	1	2	3	4	7
Images	1	2	3	4	7
Weather	1	2	3	4	7
Ringtones	1	2	3	4	7
Alerts and/or football alerts	1	2	3	4	7
Costumer Support	1	2	3	4	7
Another one. Which one? -	1	2	3	4	7

Q.66 – Using a scale that varies between 1 and 4, in which 1 stands for “I totally disagree”, 2 for “I disagree”, 3 for “I agree”, and 4 for “I totally agree”, please tell us how do you feel regarding the following ideas: (SHOW LIST 3) (READ THE ANSWERING OPTIONS AND REGISTER ONE PER LINE)

	I totally disagree	I disagree	I agree	I totally agree	I do not know/ I prefer not to answer
I FEEL CALMER WHEN I HAVE MY MOBILE PHONE WITH ME	1	2	3	4	7
THERE ARE MORE WAYS FOR OTHERS TO CONTROL ME WHEN I HAVE MY MOBILE PHONE ON	1	2	3	4	7
I FEEL VERY ANXIOUS WHEN, FOR SOME REASON, I CAN'T HAVE MY MOBILE PHONE ON	1	2	3	4	7
I FREQUENTLY HAVE THE NEED TO TURN OFF MY MOBILE PHONE SO THE CALLS I RECEIVE DO NOT INTERFERE WITH MY PERSONAL RELATIONS (GIRLFRIEND/ BOYFRIEND, HUSBAND/WIFE, KIDS, PARENTS)	1	2	3	4	7
MY MOBILE PHONE IS ONLY USEFUL IF IT'S ALWAYS TURNED ON	1	2	3	4	7
MY MOBILE PHONE ALLOWS ME TO MANAGE MY PERSONAL AND PROFESSIONAL LIFE IN A MORE EFFECTIVE WAY	1	2	3	4	7
I DO NOT LIKE TO TAKE A MOBILE PHONE CALL IN PUBLIC	1	2	3	4	7
MOST OF THE PHONE CALLS I RECEIVE OUT OF THE WORKING SCHEDULE BOTHER ME AND INVADE MY INDIVIDUAL AND/OR FAMILY'S PRIVACY	1	2	3	4	7
THE MOBILE PHONE ALLOWS ME TO IDENTIFY SOMEONES' STATUS	1	2	3	4	7
WITHOUT MOBILE PHONES, EVERYONE'S LIVES WOULD BE HAPPIER AND MORE PEACEFUL	1	2	3	4	7
MOBILE PHONES ARE BASIC INSTRUMENTS FOR BUSINESS MAKING AND FOR SOLVING PROFESSIONAL PROBLEMS, ANYTIME, ANYPLACE	1	2	3	4	7
WHEN I RECEIVE A CALL, I NEED TO MOVE AWAY, SO I CAN HAVE MORE PRIVACY	1	2	3	4	7
SINCE I HAVE A MOBILE PHONE, I DON'T HAVE THE NEED TO TRAVEL SO FAR SO I CAN SOLVE MY PROBLEMS	1	2	3	4	7
WHEN I AM ON THE PHONE, I DO NOT LIKE TO BE INTERRUPTED	1	2	3	4	7
WHEN I'M USING A MOBILE PHONE IN PUBLIC PLACES, I TRY TO CONTROL MY VOICE, SPEAKING IN A LOWER VOLUME THAN USUAL	1	2	3	4	7

Q.67 – From the following function set (SHOW LIST 4), which ones would you be interested in a near future?

	YES	NO	I DO NOT KNOW/ I PREFER NOT TO ANSWER
1. USING YOUR MOBILE PHONE AS AN ATM	1	2	7
2. BEING ABLE TO MAKE VIDEO-CONFERENCES	1	2	7
3. USING IT AS A "VIA VERDE" SERVICE	1	2	7
4. USING YOUR MOBILE PHONE AS A MP3 READER (MUSIC)	1	2	7
5. USING GPS DEVICES (SATELLITE)	1	2	7
6. BEING ABLE TO BET ON THE STOCK MARKET THROUGH YOUR MOBILE PHONE	1	2	7
7. WATCHING MOVIES AND OTHER MULTIMEDIA ELEMENTS	1	2	7
8. BEING ABLE TO PARTICIPATE IN CHATS AND DISCUSSION GROUPS	1	2	7
9. TO WATCH T.V	1	2	7

Q.68 – Please tell us: do you turn off/silence your mobile phone always/sometimes/never in... (READ THE ANSWERING OPTIONS AND REGISTER ONE PER LINE)

ALWAYS SOMETIMES NEVER DNK/PNA

1. RESTAURANTS.....1.....2.....3.....7
2. RELIGIOUS CELEBRATIONS IN CHURCHES1.....2.....3.....7
3. SHOWS (THEATRE, OPERA, CONCERT).....1.....2.....3.....7
4. CINEMA1.....2.....3.....7
5. CONFERENCES, TEACHING LESSONS, LECTURES.....1.....2.....3.....7
6. WORKING MEETINGS OR OTHERS.....1.....2.....3.....7
7. CELEBRATION MOMENTS (BIRTHDAY PARTIES, MARRIAGES, INTIMATE DINNERS).....1.....2.....3.....7
8. MOURNING CEREMONIES (FUNERALS, VIGIL OVER A CORPS).....1.....2.....3.....7
9. CONSULTATIONS, EXAMS AND MEDICAL TREATMENTS.....1.....2.....3.....7
10. TRAVELING IN PUBLIC TRANSPORTATIONS1.....2.....3.....7
11. PRIVATE CONVERSATIONS FACE-TO-FACE.....1.....2.....3.....7

Q.69 – When you receive a call from someone you don't want to talk to, what do you usually do?

- LET THE PHONE RING.....1
- TURN THE SOUND OFF.....2
- REJECT THE CALL.....3
- TURN OFF THE MOBILE PHONE.....4
- I DO SOMETHING ELSE. WHAT?8
- I DO NOT KNOW/ I PREFER NOT TO ANSWER.....9

Q.70 – Do you usually use an identified number?

YES1 □ Q.72

No2 □ Q.71

I DIDN'T KNOW THAT I COULD IDENTIFY OR HIDE MY NUMBER IN THE CALLS I MAKE.....3 □ Q.72

I DO NOT KNOW/ I PREFER NOT TO ANSWER.....7 □ Q.72

Q.71 – Please tell us: why do you use an unidentified number?

BECAUSE I DON'T WANT PEOPLE TO KNOW THE NUMBER FROM WHICH I AM MAKING THE CALL 1

BECAUSE PEOPLE THAT WOULDN'T USUALLY TAKE MY CALLS WON'T KNOW IT'S ME 2

BECAUSE I USUALLY DON'T GIVE MY PHONE NUMBER TO ANYONE 3

ANOTHER REASON. WHICH ONE?6

I DO NOT KNOW/ I PREFER NOT TO ANSWER 7

Q.72 – Can you please tell us, from the following list, which are the three main excuses you use when you don't take a call? (**SHOW LIST 5**) (**REGISTER ONE ANSWER PER COLUMN**)

First Second Third

THE LINE WAS DOWN.....1.....1.....1
 YOU DIDN'T HEAR YOUR MOBILE RINGING.....2.....2.....2
 YOU COULDN'T LISTEN TO THE MESSAGES.....3.....3.....3
 YOU HAD A PROBLEM WITH YOUR EQUIPMENT.....4.....4.....4
 YOU HAD AN URGENT DOMESTIC SITUATION TO HANDLE.....5.....5.....5
 YOU HAD AN URGENT PROFESSIONAL SITUATION TO HANDLE.....6.....6.....6
 ANOTHER ONE. WHICH ONE?8.....8.....8

Q.73 – While alone and waiting for someone, did you ever use your mobile phone: (**READ THE ANSWERING OPTIONS AND REGISTER ONE PER LINE**)

	Yes	No	I DO NOT KNOW/ I PREFER NOT TO ANSWER
SO NO ONE WOULD BOTHER YOU	1	2	7
TO FEEL YOU WERE NOT ALONE	1	2	7
TO SOLVE PENDENT MATTERS THAT YOU DEEMED URGENT	1	2	7
TO SOLVE MATTERS PENDING FOR A LONG TIME	1	2	7
TO SEND SMS TO FRIENDS, FAMILY MEMBERS OR KNOWN PEOPLE ABOUT NOTHING SPECIAL	1	2	7

Q.74 – Do you think having a mobile phone gives you a chance to raise your salary at the end of the month? (**Read**)

YES, BECAUSE I CAN HAVE A SECOND JOB.....1
 YES, BECAUSE I CAN HAVE SOME EXTRA ACTIVITIES.....2
 YES, BECAUSE I CAN HAVE A MOBILE OFFICE AND LOSE LESS TIME TRAVELING.....3
 NO4
 I DO NOT KNOW/ I PREFER NOT TO ANSWER.....7

Q.75 – Do you usually use your car or public transportations traveling moments to solve professional matters through your mobile phone?

YES1
 NO2

Q.76 – Please, tell us, does your mobile phone have a digital camera?

YES1 **Q.77**
 NO2 **Q.80**

Q.77 – On average, how many photos do you take in a week? (IF THE ANSWER IS "I DO NOT KNOW/ I PREFER NOT TO ANSWER", REGISTER 99)

MEDIUM NUMBER OF PHOTOS TAKEN IN A WEEK: '____'____'

Q.78 – From these ones, how many do you send to other people? (IF THE ANSWER IS "I DO NOT KNOW/ I PREFER NOT TO ANSWER", REGISTER 99)

MEDIUM NUMBER OF PHOTOS SENDED: '____'____'

Q.79 – What is the main situation in which you use your mobile phone's camera? (**ONLY ONE ANSWER**)

TO SHOW I'VE BEEN PRESENT IN A CERTAIN SITUATION OR HAPPENINGS.....1
 TO KEEP A SOUVENIR.....2
 SO I CAN SHOW OBJECTS OR PEOPLE TO MY FRIENDS/FAMILY MEMBERS/ KNOWN PERSONS.....3
 FOR PROFESSIONAL REASONS.....4
 ANOTHER REASON. WHICH ONE?8

Q.80 – Have you personalized your mobile phone with a screen saver, a favorite ring tone or not?

YES.....1
 NO.....2
 I DIDN'T KNOW I COULD DO THAT AND HOW TO DO THAT.....3
 I DO NOT KNOW/ I PREFER NOT TO ANSWER.....7

SMS Module

Q.81 – On average, how many SMSs do you send through your mobile phone?

IF “NONE”, REGISTER 98

IF “I DO NOT KNOW/ I PREFER NOT TO ANSWER”, REGISTER 99

AVERAGE NUMBER OF DAILY SENT SMS: ‘ ____ ’

Q.82 – And, on average, how many MMSs do you send daily through your mobile phone?

IF “NONE”, REGISTER 98

IF “I DO NOT KNOW/ I PREFER NOT TO ANSWER”, REGISTER 99

AVERAGE NUMBER OF DAILY SENT MMS: ‘ ____ ’

SEE Q.81

IF NONE □ GO TO THE BOX BEFORE Q.87

Q.83 – Please tell us, who do you send the most SMSs to through your mobile phone?

(REGISTER ONLY ONE ANSWER)

YOUR FAMILY.....1
 YOUR FRIENDS.....2
 YOUR COLLEAGUES ABOUT PROFESSIONAL MATTERS.....3
 YOUR COLLEAGUES ABOUT PERSONAL MATTERS.....4
 OTHER PEOPLE. TO WHOM?8
 I DO NOT KNOW/ I PREFER NOT TO ANSWER.....9

Q.84 – Using a scale from 1 to 4, in which 1 stands for “Never”, 2 for “Not frequently”, 3 for “Frequently” and 4 for “Very frequently”, please tell us how often do you send SMSs to interact in the following situations:

(SHOW LIST 2) (READ THE SENTENCES AND REGISTER ONE ANSWER PER LINE)

	Never	Not frequently	Frequently	Very frequently	I do not know/ I prefer not to answer
A. GENERAL TV QUIZ SHOWS	1	2	3	4	7
B. RADIO QUIZ SHOWS	1	2	3	4	7
C. NEWS AND INFORMATIVE SHOWS POLLS	1	2	3	4	7
D. SPORTS TV QUIZ SHOWS	1	2	3	4	7
E. OPINION PROGRAMS	1	2	3	4	7
F. TO OBTAIN IMAGES FROM TV, RADIO AND NEWSPAPERS	1	2	3	4	7
G. TO OBTAIN SONGS FROM TV, RADIO AND NEWSPAPERS	1	2	3	4	7
H. TO OBTAIN JOKES, INSULTS AND QUIZZES	1	2	3	4	7
I. TO OBTAIN IMAGES FROM	1	2	3	4	7

YOUR FAVORITE FOOTBALL TEAM					
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VER Q.84

IF ALL ANSWERS WERE "NEVER" → GO TO THE BOX BEFORE Q.87

IF ALL ANSWERS WERE "NEVER" EXCEPT IN Q.84.B → GO TO THE BOX BEFORE Q.87

OTHERWISE → GO TO Q.85

Q.85 – Tell us the three main programs you have ever sent SMS to: **(Do not suggest an answer)**

FIRST PROGRAM _____

SECOND PROGRAM _____

THIRD PROGRAM _____

Q.86 – Have you ever seen your SMS/ question on TV?

Yes 1

No 2

I DO NOT KNOW/ I PREFER NOT TO ANSWER 7

SEE Q.1

IF THE ENQUIRED ANSWERED CODE "6" OU "7" → GO TO THE BOX BEFORE Q.91

OTHERWISE → GO TO Q.87

Q.87 – Do you use the Internet to send SMSs?

Yes 1 → Q.88

No 2 → Q.89

YOU DO NOT KNOW WHAT IT IS 3 → Q.89

IT DOESN'T APPLY / YOU DO NOT HAVE ACCESS TO THE INTERNET 4 → Q.89

I DO NOT KNOW/ I PREFER NOT TO ANSWER 7 → Q.89

Q.88 – Do you use:

(YOU CAN REGISTER MORE THAN ONE OPTION)

THE WEB PAGE FROM YOUR MOBILE COMMUNICATIONS OPERATOR 1

THE WEB PAGE FROM OTHER OPERATORS 2

Q.89 – How often do you use MOBILE COMMUNICATIONS OPERATORS WEB PAGES TO DOWNLOAD PICTURES, RINGTONES AND OTHER SOUND EFFECTS?

ALL THE TIME 1 → Q.90

VERY FREQUENTLY 2 → Q.90

SOMETIMES 3 → Q.90

NEVER 4 → Q.91

I DO NOT KNOW WHAT THAT IS 5 → Q.91

I DO NOT KNOW/ I PREFER NOT TO ANSWER 7 → Q.91

Q.90 – Please, tell us, which sites do you use to make the following operations:

(ACCEPT TWO ANSWERS, AT MOST)

TMN 1

VODAFONE 2

OPTIMUS 3

REDE 4 4

SEE Q.1 AND Q.81
IF ANSWER TO Q.1 WAS "6" OR "7" AND "NONE" TO Q.81 → GO TO Q.93
OTHERWISE → GO TO Q.91

Q.91 – Do you usually use a different language when you write SMSs (for example: abbreviations, different letters, symbols, etc)?

(READ THE OPTIONS AND REGISTER ONLY ONE ANSWER)

- YES, ALWAYS.....1
 YES, SOMETIMES.....2
 No3
 IT DEPENDS ON WHO I AM SENDING THE MESSAGE TO4
 I DO NOT KNOW/ I PREFER NOT TO ANSWER.....7

Q.92 – Can you tell us if you ever used SMSs to ...?

(READ THE OPTIONS AND REGISTER ONE ANSWER PER LINE)

	Yes	No	I don't know/ I prefer not to answer
Schedule a date	1	2	7
ACCEPT A DATE	1	2	7
END A RELATIONSHIP	1	2	7
SEND A MESSAGE DURING A DATE THAT IS GOING WRONG	1	2	7
SEDUCE SOMEONE	1	2	7

Q.93 – Please, tell us, how would you prefer to communicate in the following situations:
(SHOW LIST 6) (READ THE SENTENCES AND REGISTER ONE ANSWER PER LINE)

	Personally	Telephone	E-mail	SMS
A. Someone you know had a promotion/ a school success episode and you would like to tell someone about it	1	2	3	4
B. Someone you know had a severe accident and is at live risk and it's up to you to inform the family	1	2	3	4
C. Someone you know will give a celebration party (marriage, a christening-party, marriage anniversary) and asked you to confirm your attendance	1	2	3	4
D. Someone you know is at a difficult personal situation (separation, divorce, disease) and you want to comfort him/her	1	2	3	4
E. Someone wants to talk to you about a matter that isn't comfortable for you	1	2	3	4

SEE F.1.A:
IF 8 TO 18 ANOS → GO TO Q.94
OTHERWISE → GO TO Q.99

Q.94 – How often do you communicate through the telephone with your family members? **(READ)**

- ALWAYS.....1
 VERY FREQUENTLY.....2
 SOMETIMES.....3
 NEVER.....4
 I DO NOT KNOW/ I PREFER NOT TO ANSWER.....7

Q.95 – Do you have any special price plan to call/send SMSs to specific numbers?

- YES1
 No2
 I DO NOT KNOW/ I PREFER NOT TO ANSWER.....7

Q.96 – Do you use any of the following to communicate with your friends:

IN PERSON.....01

BY PHONE.....	02
BY MOBILE PHONE.....	03
SMSS THROUGH A MOBILE PHONE.....	04
BY E-MAIL.....	05
THROUGH THE USE OF IMPs (MESSENGER AND OTHERS).....	06
THROUGH THE USE OF VOIP (SKYPE, ETC.).....	07
ANOTHER MEAN: WHICH ONE?	98
I DO NOT KNOW/ I PREFER NOT TO ANSWER.....	99

Q.97 – Is there someone in your circle of friends that does not live at the same town?

YES	1	Q.98
NO	2	Q.99
I DO NOT KNOW/ I PREFER NOT TO ANSWER	7	Q.99

Q.98 – How do you usually communicate with them?
(MAKE NO SUGGESTIONS)

BY PHONE	01
BY MOBILE PHONES.....	02
SMSS THROUGH A MOBILE PHONE	03
BY E-MAIL	04
THROUGH THE USE OF IMPs (MESSENGER AND OTHERS).....	05
THROUGH THE USE OF VOIP (SKYPE, ETC.).....	06
ANOTHER MEAN: WHICH ONE?	98

ANNEX C - Women Interviewed

List of the women interviewed, according to life-stage, with a brief description.

Dependent

1. Constança, 23 year-old, University student, single;
2. Joana, 20 year-old, university student, single;
3. Raquel, 20 year-old, high-school student, single;
4. Rita, 24 year-old, designer in an internship.

Young Independent

5. Carla B., 35 year-old, economist, single
6. Inês, 25 year-old, marketing manager, single
7. Nicole, 29 year-old, engineer, single;

Nesting

8. Catarina, 31 year-old, teacher, married;
9. Patrícia, 33 year-old, economist;
10. Patrícia D., 36 year-old, marketing manager;
11. Sandra A., 35 year-old, environment engineer;
12. Sónia, 27 year-old, pharmacist;
13. Vanda, 36 year-old, training technician.

Mothers

14. Ana A., 34 year-old, web content producer, married, mother of an infant;
15. Ana C., 34 year-old, journalist, mother of an infant;
16. Ana D., 39 year-old, business owner, married, mother of two children;

17. Carla D., 34 year-old, unemployed marketing manager, married, mother of a toddler;
18. Margarida, 33 year-old, engineer, married, mother of two infants;
19. Sara, 35 year-old, social worker, married, mother of two children;
20. Sílvia, 29 year-old, nurse, married, mother of an infant

Mature Independent

21. Ana, 56 year-old, assistant, single;
22. Carla P. 30 year-old, tourism agent, separated;
23. Estela, 36 year-old, communications manager, divorced;
24. Marisa, 34 year-old, consultant, divorced;
25. Susana, 36 year-old, engineer, single.

Sole Caregivers

26. Carmen, 40 year-old, secretary, divorced, mother of two;
27. Cecília, 46 year-old, human resource technician, divorced, mother of a teenage boy;
28. Fatima, 52 year-old, unemployed administrative worker, divorced, living with her mother and niece. Her son is divorce and as a military comes home on the weekends;
29. Sofia, 47 year-old, human resource manager, divorced, mother of two teenage boys.

Empty Nesters

30. Deolinda, 51 year-old, hairdresser business owner, widow , now living in a new relationship;
31. Fátima 2, 56 year-old, retired insurance professional, married, and grandmother of one;
32. Fernanda F., 52 year-old, computer manager, married;

33. Fernanda R., 65 year-old, retired topographer, married, grandmother of two. She was taking care of one of her grandchildren;
34. Manuela, 56 year-old, pre-retired saleswoman, divorced in a new relationship;
35. Maria, 60 year-old, retired teacher, married, grandmother of three;
36. Paula, 59 year-old, retired administrative, married, grandmother of two. She takes care of one of her grandsons.

ANNEX D – Interview Script

Identification

Name:

Age:

Marital Status:

Children (sex and age, living arrangements and education):

Education (also from the husband or other people sharing the house):

Job (also from husband or others sharing house, namely parents):

Place of Birth (also from husband or others sharing house and parents):

Place of residence (also from parents):

How would you describe in your own words your financial status?:

Life trajectories | opportunities and choices | gender identity | turning points

1. Life history

Orientation Question: Could you briefly trace your life trajectory. Where were you born? How was your childhood and adolescence? Which moments or events were more distinct in your life? Do you feel your trajectory was influenced by being a woman?

2. Education

Orientation Questions: What are your parent's jobs? How was your education? Who most influenced your education and why? Do you feel you've had the same opportunities and freedom of choice as being a woman?

3. Job

Orientation Questions: How was your professional trajectory? Who most influenced this trajectory and why? Do you feel you had the same opportunities and freedom of

choice by being a woman? In your current job context do you feel conditioned by being a woman?

Time Uses and Technological Uses

1. Daily Routine

Orientation Questions: Please describe a typical day. And a weekend? Activities performed inside the house (ex. Household tasks: paying bills, paying taxes, take the car to the mechanic) and activities performed outside the house. Going back to the turning points in your life what changed in your daily routine? Would you welcome help? and from who? (Shopping, household tasks, taking care of the kids, taking care of pets, organize dates and activities with friends and relatives).

2. Stress and Multitasking

Orientation Questions: Do you usually feel you are stressed? Why? Do you perform a lot of simultaneous tasks or do you have several objectives to accomplish in the same timeline? What changes in this regard occurred in the turning points that you mentioned? Do technologies relief or add more stress to your life? Which ones and why? Do you have available time and not knowing what to do with it? If you could have more time what would you choose to do with it? Why? Do you think that stress and multitasking are related to being a woman? Do you think you have more responsibilities for being a woman?

3. Conviviality and Social Network Management

Orientation Questions: Describe the relationship you have with your family (outside the household) and with your friends. Do you live close to them? How often are you able to be with them? Who arranges those dates? How do you keep in touch?

4. Values, Expectations and Needs

Orientation Questions: How would you describe your present life? What are your needs and expectations?

Needs: Happiness, Balance between personal and professional life, Accomplishment, Tranquility, No stress, to feel appreciated, recognition, peace, fulfillment, stability.

Life Challenges: progress in the career, balance professional life, educate the children, taking care of elderly parents, priorities that are in conflict, too many demands, not enough money.

5. Technological Uses

Orientation Questions: Which technologies do you use and when? For what purpose (what technology do you use to get information, for entertainment, to work? With whom do you share those uses? Are they very distinct from other people in your household? Why? Did you notice changes in those uses in the turning points of your life? Which technologies do you use daily and occasionally?

6. Technological Intimacy

Orientation Questions: From the technologies that you most use which ones to you consider as being yours? Why? Which devices don't you like to share and why? What technology do you most value and why? Who decides what gets bought (for the household and for your private use) and why? When you do buy do you feel that stores are organized and prepared to answer your questions and expectations? Why? When you buy products that require setting up who does it? Why?

Technologies: Television, radio, game consoles, MP3 reader, photo camera, mobile phone, computer, Portable computer, GPS, video camera, others, which?

Topics to cover: The media diet, what technologies women use and why. What are the differences to other household members like children and spouse? What gender or age differences can be identified?

Space and Technological Uses

7. Public and Private Uses

Orientation Questions: Describe the location of the main technologies that you use in your house. Where is the PC, where do you access the Internet, where is the television set? Which technologies do you think are private and which are public? Which technology you wouldn't leave home without?

The Mobile Phone

8. History

Orientation Questions: For how long do you have a mobile phone? How did you get your first mobile phone? (if this was given to you, by whom?) Why? What think changed in your life because you have a mobile phone?

9. Identity

Orientation Questions: What mobile phone do you currently own? (Brand, features, carrier) How did you have it? Why do you own a mobile phone? Which mobile phone provider do you use and why? What other mobile phones there are in your household? How does your mobile phone compared to that of friends? We are going to show you several devices. Can you please talk about them: what is your first impression, please describe the person to whom you think each device belongs to. With which one do you relate more? Why? If you could choose any mobile phone which would you choose and why. In the comparison we used six models – the Blackberry Curve, the Samsung H1, the Samsung M1, the HTC, the iPhone. The Blackberry Curve was chosen because it matches the stereotype for a professional device, targeted to executives. The Samsung H1 was chosen because it is a sophisticated device but more targeted for social networking. The Samsung M1 was chosen because visually is very similar to the H1 but is pink and it offers a pink case. The HTC tattoo is chosen for its appeal to a younger target and finally the Huawei was introduced as an option for a low-end model.



Mobile Phone 1

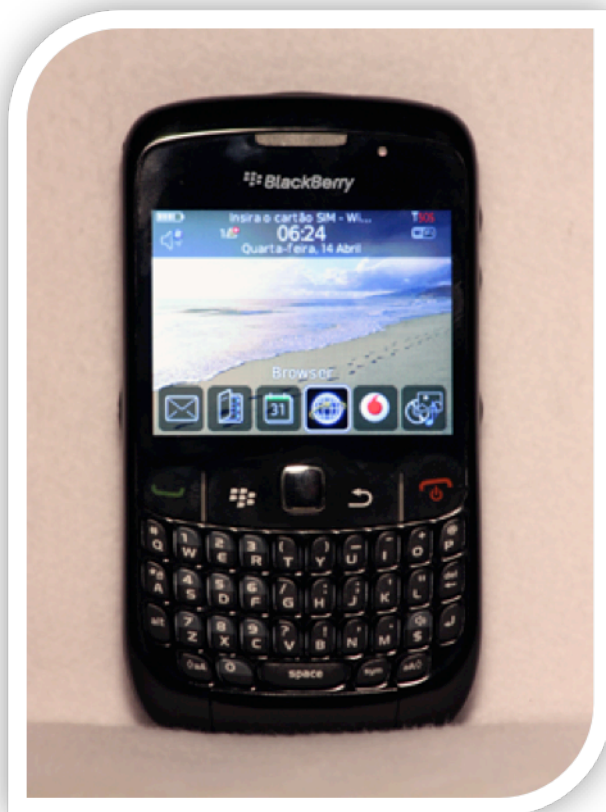
Manufacturer:

Apple

Model:

iPhone 3GS 16 GB

Color: White



Mobile Phone 2

Manufacturer:

BlackBerry

Model: Curve

Color: Black



Mobile Phone 3

Manufacturer:

Samsung

Model:

H1 – Vodafone 360

Color: Black



Mobile Phone 4

Manufacturer:

Samsung

Model: N1 –

Vodafone 360

Color: Pink

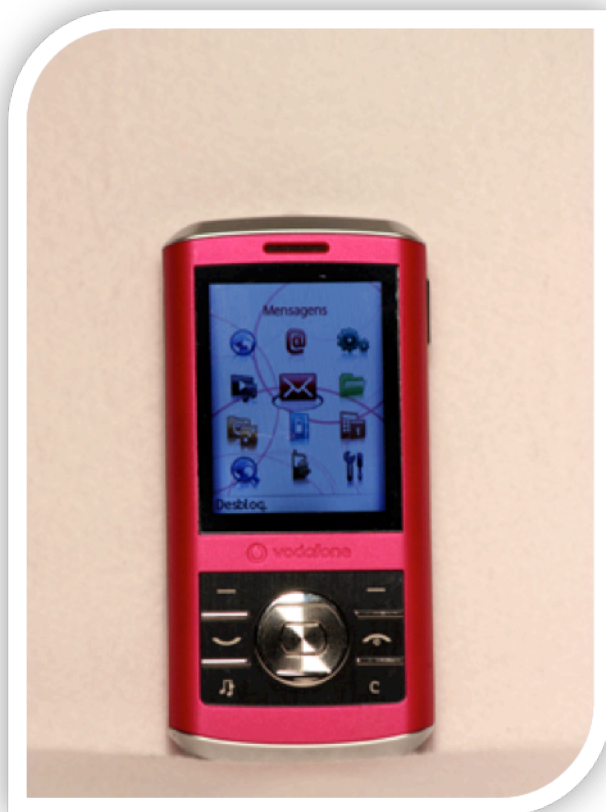


Mobile Phone 5

Manufacturer:
HTC

Model: Tattoo

Color: Charcoal



Mobile Phone 6

Manufacturer:
Huawei

Model:
Vodafone 736

Color: Pink

10. Personalization

Orientation Questions: Do you personalize your mobile phone? How? (Contents, accessories like cases and covers). Provide an example that you think best describes your personalization habits. Do you personalize other objects? (Computer, portable computer, game consoles...). Do you have more than one phone that you might use for different circumstances? Do you think the mobile phone can be a fashion assessor?

11. Uses and Practices

Orientation Questions: Which features do you use? (MMS, camera, games, video camera, Bluetooth, qwerty keyboard, Internet, email, social networks, touch screen, alarm clock, agenda). Besides voice, if you could choose one more feature what would be and why? What features you do not use and why? What features you don't have and would like to and why? What is your main use of the mobile phone (answer calls, make calls, browse the Internet, send and receive text messages, games, listen to music)? With whom do you speak more? (Relatives, friends, co-workers) Which, if any, services from your mobile phone provider do you use? Which are for you the main benefits of owning a mobile phone? Do you think the uses of the mobile phone have change throughout the turning points in your life? In what way?

12. Photography

Orientation Questions: Do you own a photo camera? Do you have a camera on your mobile phone? How do you use them, any differences between them or has one replaced the other? Who organizes the photos? Why? How do you organize them? Do you usually share your photos? How? Do you print your photos? For what purpose? Do you make a photo album? Where, who does it, what is the purpose? Do you have a video camera? Do you have a video camera on the mobile phone? Do you use or would you use videocalls? Why?

13. Market Offer

Orientation Questions: Are you happy with the market offer? Provide an example of a service or a device that you feel satisfies or would satisfy your needs. Do you feel attracted to the mobile phones advertising? Do you feel that companies think of women when they are developing their products? In what way?

14. Comparison with other Media

Orientation Questions: What do you think most distinguish your mobile phone use from other technological uses? From the computer? From the Internet?

15. Dependency

Orientation Questions: If you had to go without the mobile phone for two weeks your life would be worse, better, nothing would change? Why? Do you turn off your mobile phone in any occasion? When? What do you start doing with the mobile phone that you did by other means before (invitations, congratulate friends...). Why? What would be harder to do without the mobile phone? (Keep in touch with friends, arrange for dates, keep track of family life, solve professional matters, solve personal matters, and keep love contacts). How would you characterize the relationship with the mobile phone? (Emotional, functional, fashion assessor, status, as a safety mechanism) Comment on the following statements:

- I feel calmer when I have my mobile phone;
- I am more likely to be reach when I have my mobile phone;
- I feel anxious when I don't have my mobile phone;
- I will go back if I forget my mobile phone at home;
- I feel the need to turn off my mobile phone not to interfere with my personal life;
- The mobile phone allows me to manage my personal life more effectively;
- The mobile phone allows me to manage my professional life more effectively;
- I feel free when I turn off my mobile phone;

16. Affectivity

Orientation Questions: Has the mobile phone had any sort of impact on your love life? Have you ever ended a relationship on the mobile phone? Do you use your mobile phone to maintain your love relationship at a distance? In which way? (text messages, video calls, voice calls).

17. Social norms and Rules

Orientation Questions: What norms or rules do you follow in the use of the mobile phone? Could you comment the following statements?

- Answering a phone call in public bothers me;
- Listening to other people on the phone bothers me;
- The ringtones should be chosen as not to bother others;
- I don't use text messages to people that I don't know well.

18. Safety and Control

Orientation Questions: Show the following cartoon and ask for a comment. Do you recognize the situation? Would you do something similar and why?